

Massport Marine Terminal - Parcel 6, So. Boston, MA

Marine Industrial Seafood Processing and Supporting
Mixed-Use Garage Development



PROJECT NOTIFICATION FORM February 26, 2018

*Submitted Pursuant to Article 80B
of the Boston Zoning Code*

SUBMITTED BY:

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PREPARED BY:



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SUBMITTED TO:



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Boston, MA 02201

IN ASSOCIATION WITH:

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February 26, 2018

Mr. Brian Golden, Director
Boston Planning and Development Agency
One City Hall Square, 9th Floor
Boston, MA 02201
Attn: Ms. Aisling Kerr, Project Manager

**RE: Project Notification Form
Proposed Marine Industrial Seafood Processing and Supporting
Mixed-Use Garage Development
MMT Parcel 6, Ward 6, South Boston**

Dear Director Golden:

On behalf of Pilot Seafood Properties III LLC, a Massachusetts Limited Liability Company (the “Proponent”) as developer of 6.5 acres of real property of the Massport Marine Terminal’s (“MMT”) 29.5 acre site located on Parcel 6, South Boston (the “Project Site”), we are pleased to submit this voluntary Project Notification Form (“PNF”) to the Boston Planning and Development Agency (“BPDA”) in accordance with the Article 80B-2 Large Project Review requirements of the Boston Zoning Code. The Project is comprised of approximately 220,000 gross square-feet (“gsf”) in separate facilities for two to three expanding seafood companies, as well as providing an accessory and supporting mixed-use parking structure to offer much-needed parking infrastructure for the marine industry not served by public transportation. The Project is expected to be developed in three phases with associated infrastructure improvements to the adjacent, to be developed, Shore Road and a road with the working attribution for design purposes of Bollard Way, and include upwards of approximately 115,000 gsf of seafood processing facilities on Sub-Parcels 6A and 6B, and approximately 101,000 gsf of parking in a mixed-use space on Sub-Parcel 6C (“Proposed Project”).

The public notice for the PNF appears in the February 26, 2018 edition of the *Boston Herald*.

Mr. Brian Golden, Director
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The Proposed Project will exceed the 15,000 square foot size threshold pursuant to Article 80 for a project within a Boston Harborpark zoning district, and therefore necessitates filings with the BPDA pursuant to Large Project Review requirements. A Letter of Intent to File a Project Notification Form was filed with the BPDA on December 20, 2017 (attached hereto as Appendix "A").

In support of the Article 80 Large Project Review process, the Proponent will conduct community outreach with neighbors and abutters of the site. Initial meeting(s) and discussions with elected representatives and other officials has taken place, and the Proponent has had more than two pre-filing meetings with staff of the BPDA.

We believe that the Proposed Project will constitute a significant positive addition to the Raymond L. Flynn Marine Park, by revitalizing this underutilized site with much-needed new marine industrial and supporting uses in attractive and thoughtfully designed buildings. We look forward to continuing the Large Project Review process and advancing the Proposed Project through public review with the cooperation of the BPDA, other City officials, and the South Boston community.

In accordance with BPDA requirements, please find attached seven (7) copies of the PNF.

Very truly yours,
MITCHELL L. FISCHMAN ("MLF") CONSULTING LLC



Mitchell L. Fischman, Principal

cc: Ms. Aisling Kerr, BPDA Project Manager

PUBLIC NOTICE

The Boston Redevelopment Authority (“BRA”), d/b/a the Boston Planning and Development Agency (“BPDA”), pursuant to Article 80B of the Boston Zoning Code (“Code”), hereby gives notice that Pilot Seafood Properties III LLC (the “Proponent”) is voluntarily submitting a Project Notification Form (“PNF”) on February 26, 2018 to the BPDA for marine industrial seafood processing facilities with a supporting mixed-use garage to be located on Parcel 6 of the Massport Marine Terminal on Fid Kennedy Avenue within the Raymond L. Flynn Marine Park in the South Boston neighborhood of Boston. The proposal includes the construction of approximately 220,000 gross square feet of space in separate facilities to be owned by two or three seafood companies, each seeking to expand from other locations, and includes an accessory and supporting mixed-use parking structure to satisfy the need of the marine industry not served by public transportation along with an over the counter seafood shop and a union hall for the International Longshoremen’s Association (“ILA”) (“Proposed Project”). The project area includes approximately 6.5 acres of vacant and underutilized land between Fid Kennedy Avenue, Tide Street Extension, Shore Road, and a new road to be constructed as a part of the Proposed Project with a working name of “Bollard Way” (“Proposed Site”). Approvals are requested of the BPDA pursuant to Article 80. The BPDA in the Scoping Determination for such PNF may waive further review pursuant to Section 80B-5.3(d), if, after reviewing public comments, the BPDA finds that such PNF adequately describes the Proposed Project’s impacts. The PNF may be reviewed at the Office of the Secretary of the BPDA, Room 910, Boston City Hall, Boston, MA 02201, between 9:00 AM and 5:00 PM, Monday through Friday except legal holidays. A copy of the PNF is available for review at the South Boston Branch - Boston Public Library, 646 East Broadway, South Boston, MA 02127 during scheduled business hours. Public comments on the PNF, including the comments of public agencies, should be submitted by email to: Aisling.Kerr@boston.gov or in writing to: Aisling Kerr, Project Manager, BPDA, One City Hall Square, Boston, MA 02201 by March 30, 2018 at the close of business.

BOSTON REDEVELOPMENT AUTHORITY
Teresa Polhemus, Executive Director/Secretary
February 26, 2018

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

Pilot Seafood Properties III LLC (the “Project Proponent”) submits this Project Notification Form (“PNF”) advancing the voluntary project review by the Boston Planning and Development Agency (“BPDA”) of marine industrial facilities and accessory uses, including a parking garage (altogether, the “Project”) on Parcel 6 in the Massport Marine Terminal (“MMT”), on Fid Kennedy Avenue, within the Raymond L. Flynn Marine Park (“RLFMP” or “Marine Park”) in South Boston, Massachusetts (“Proposed Site”), in accordance with the Article 80 requirements of the Boston Zoning Code (“Code”). The MMT is also known as RLFMP Parcel M-1.

MMT Parcel 6 (“Proposed Site”) includes approximately 6.5 acres of the overall 29.5-acre MMT. The MMT is land filled by Massport under the terms of a lease with EDIC that extends to February 2070. Parcel 6 is bounded to the north by Shore Road, to the south by Fid Kennedy Avenue, to the west by the Tide Street extension, and to the east by a new road to be constructed as part of the Project, with the working name of “Bollard Way.” (Please see **Figure 1-1. Project Locus - Parcel 6**).

The MMT was created by Massport to support maritime industrial use. The Proposed Project was conceived by the Project Proponent in response to a February 2016 Request for Proposals (“RFP”) issued by the Massachusetts Port Authority (“Massport”) for maritime industrial development and utilization of the MMT, with an emphasis upon the seafood industry. (Please see **Figure 1-2. Massport Marine Terminal Conceptual Framework, 2017**).

The Project Proponent, through related companies, has developed and assisted several other seafood industry projects in the Marine Park, including two buildings at New Boston Seafood Center, the multi-tenant seafood processing building at 8 Seafood Way, and Legal Sea Food’s Quality Control Center.

The development goals are to:

- Support the growth and expansion of seafood companies on the MMT;
- Make full use of the capacity of the site area, including its proximity to the Boston waterfront;
- Add a much-needed parking resource for maritime industrial users;
- Support the seafood industry’s long-term stability and future in Boston through industry-owned facilities;
- Provide a limited but valuable interface between the seafood industry and the public; and
- Develop other uses that provide programmatic enhancement to the seafood cluster in the Marine Park.

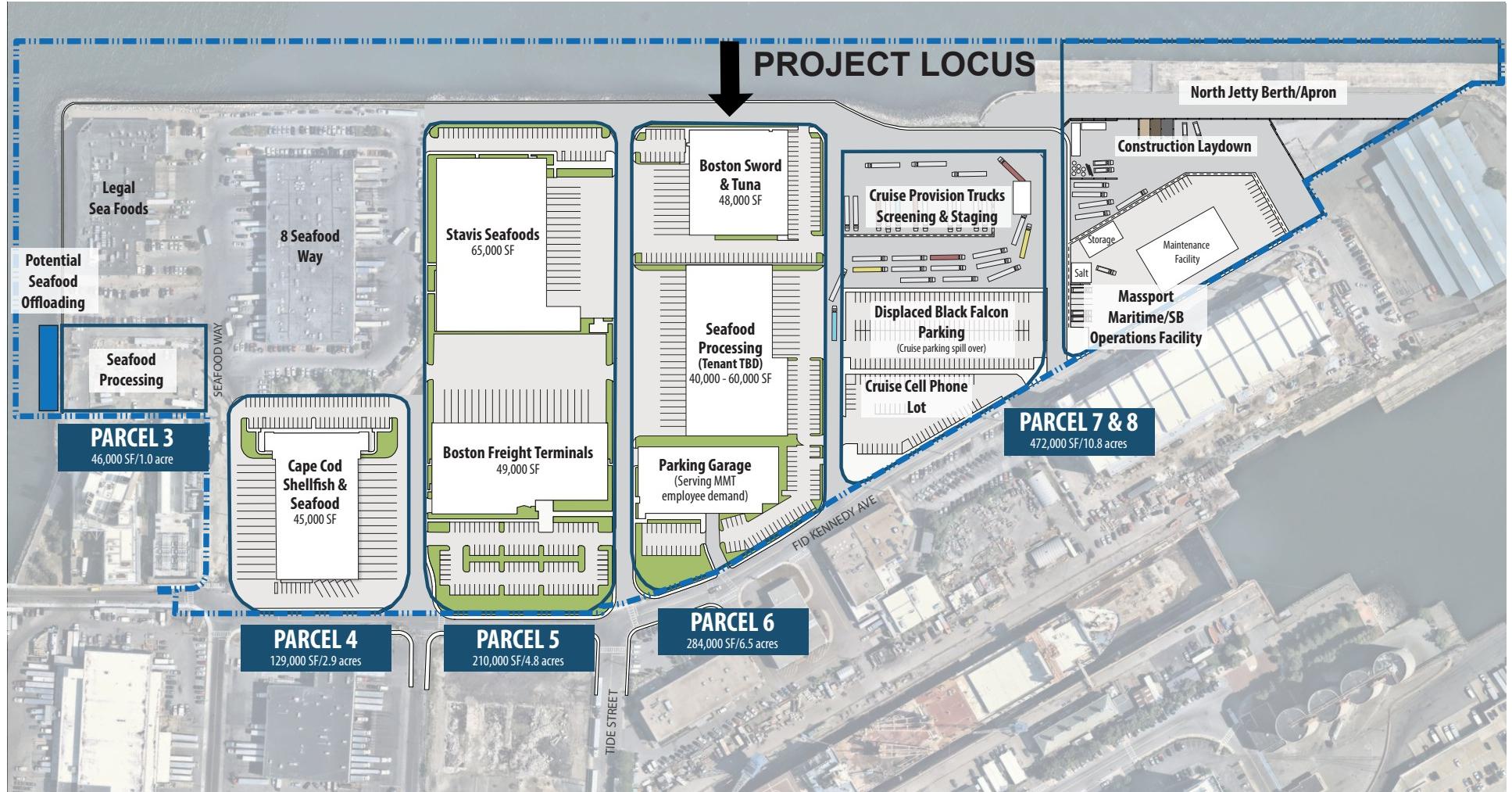


Figure 1-1. Project Locus- Parcel 6

Executive Summary

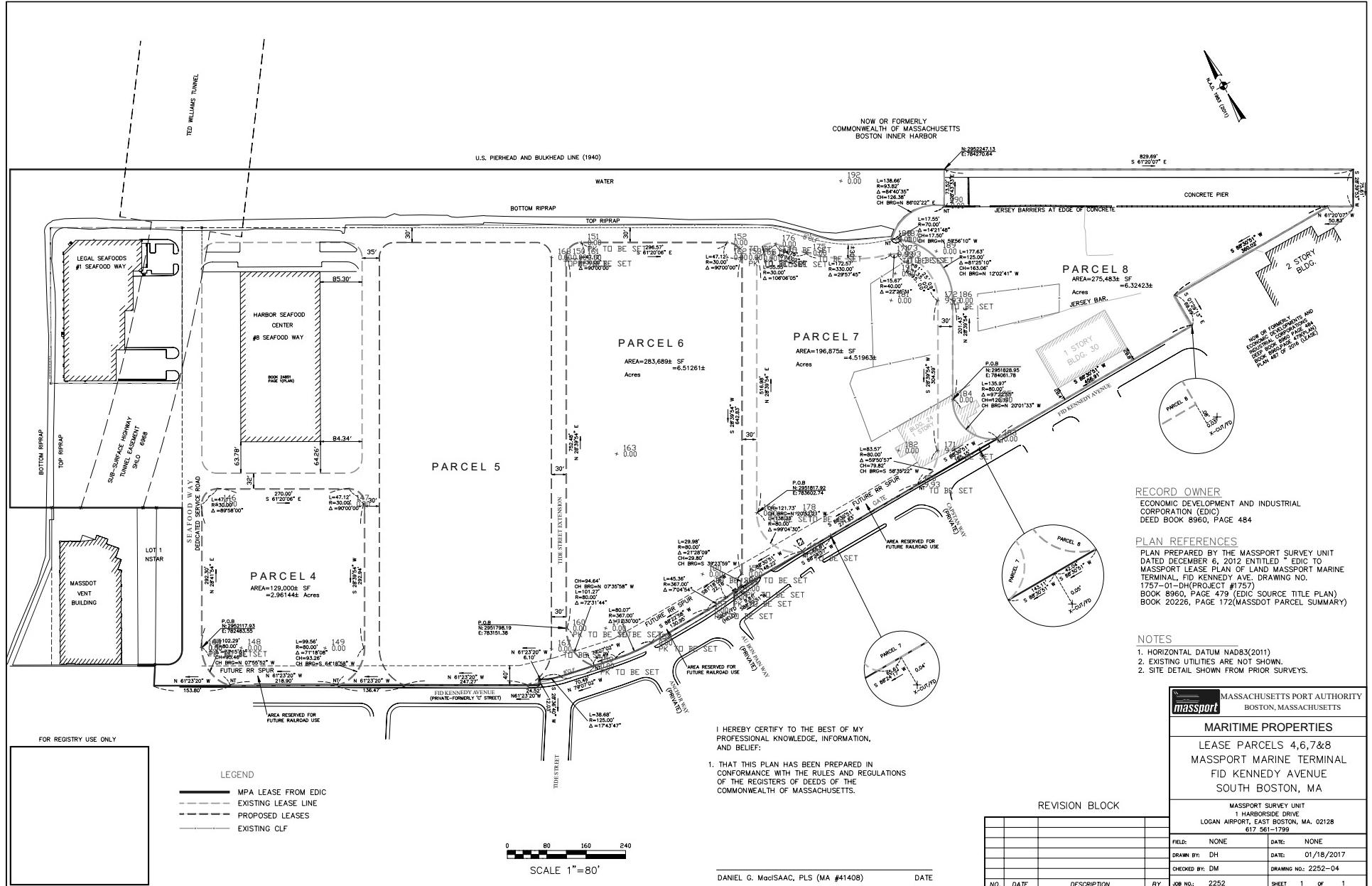


Figure 1-2. Massport Marine Terminal Conceptual Parcel Framework, 2017

Executive Summary

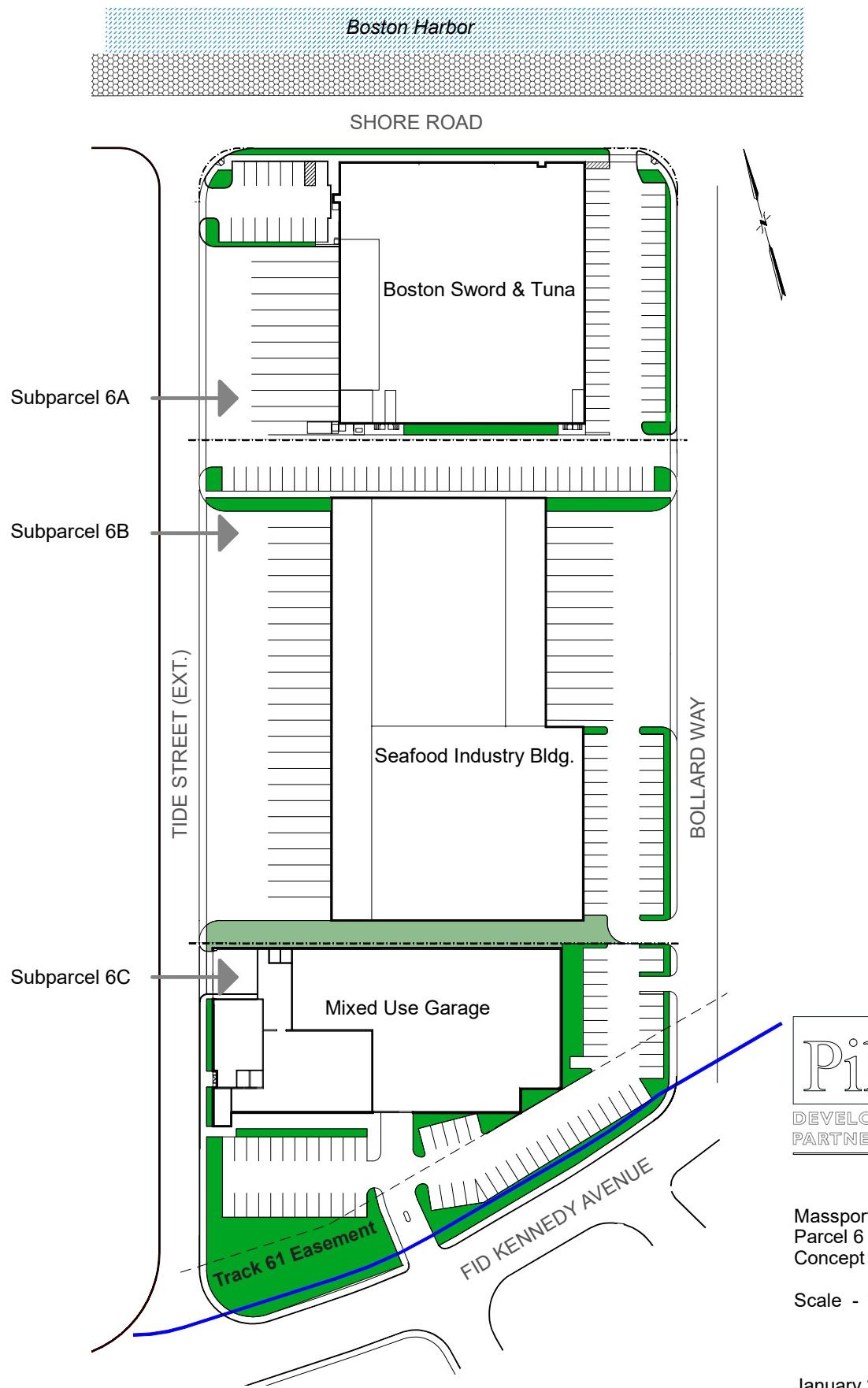
The Proposed Project comprises approximately 220,000 square-feet (“sf”) of gross floor area (“GFA”) in separate facilities to be owned by two to three seafood companies, each seeking to expand from other locations. It also includes an accessory and supporting mixed-use parking structure to satisfy a need of the marine industry not served by public transportation. The proposed buildings will be of varying heights, but all under 50 feet. The Project is expected to be developed in three sub-parcels, with associated infrastructure improvements to adjacent Shore Road, and construction of a new road with a working attribution for design purposes of “Bollard Way” along the site’s easterly boundary.

The project combines upwards of approximately 115,000 sf of GFA of seafood processing facilities on Sub-Parcels 6A and 6B, and approximately 101,300 sf of parking in a mixed-use space on Sub-Parcel 6C. Please see **Figure 1-3. Parcel 6 - Preliminary Development Concept Plan**. The proposed development will also provide an opportunity for up to 150 new, permanent maritime industrial jobs, and will perform to high sustainability and climate-resiliency standards.

The Proposed Project will support the expansion of medium to larger seafood companies into the existing seafood industry mix at the MMT, making full use of the site area and its proximity to the waterfront. Supporting the seafood industry’s long-term stability and future in Boston, the facilities will be owned by each occupying seafood company as its subleasehold improvements. The Project Proponent will be the master ground lessee of the site.

The first of the new seafood buildings will be for Boston Sword & Tuna, which has outgrown its space located nearby at 8 Seafood Way. The accessory mixed-use parking structure will contain an over-the-counter seafood shop, as well as the new International Longshoremen’s Association Union Hall on its ground floor. The garage will include 280 parking spaces, which are in addition to accessory surface parking at the site. The structured parking spaces will be available to serve the proposed seafood facilities, users of the International Longshoremen’s Association Union Hall, customers of the over-the-counter seafood shop, and other maritime industrial employees within this portion of the Raymond L. Flynn Marine Park.

As a water-dependent marine industrial project on land leased by Massport from the City of Boston, the Project is compliant with the combined Master Plan and Environmental Impact Report (“EIR”) issued for the Marine Park in 1999 (“RLFMP Master Plan”), as well as the Notice of Project Change (“NPC”) to that document filed by the BPDA with the Commonwealth in December 2017, and the Chapter 91 Master License issued for the RLFMP in 2005 (“Chapter 91 Master License”). Moreover, pursuant to 310 CMR 9.03(3)(a), *Activities of the Massachusetts Port Authority*, Massport may undertake any project consisting entirely of water-dependent-industrial uses or accessory uses thereto on previously filled or flowed tidelands within the Port of Boston, without written authorization in the form of a license or permit from the Waterways Division of the Massachusetts Department of Environmental Protection (“MassDEP Waterways”).



Pilot
DEVELOPMENT
PARTNERS, INC.

Massport MMT
Parcel 6
Concept Plan

Scale - 1" = 100'

January 26, 2018

Nor does the Project require zoning relief. As property leased from Massport, an agency created by the Massachusetts Legislature, the Project Site is exempt from municipal zoning regulations for action reasonably related to Massport's essential governmental function. Regardless, the Proposed Project complies with the City of Boston's South Boston Maritime Economy Reserve Subdistrict. (See Boston Zoning Code sec.42A-19.)

The Project Proponent filed a Letter of Intent to File a Project Notification Form with the Boston Planning and Development Agency for the proposed marine industrial development on December 20, 2017 (Please see **Appendix A**).

The project permitting team includes Mitchell L. Fischman ("MLF") Consulting LLC (permitting), Howard Stein Hudson (transportation), Soden Sustainability (LEED/sustainability), and Dalton & Finegold LLP (legal), DESMAN (parking garage designer), Design Group/STV Inc. (architecture), and Ray Dunetz Landscape Architecture leading the Proponent thru all aspects of permitting process, which includes the filing of this Project Notification Form with the BPDA, and a subsequent Environmental Notification Form with the Executive Office of Energy and Environmental Affairs, MEPA Office.

1.2 Detailed Project Description

1.2.1 Existing Conditions Plan and Massport Marine Terminal (MMT) Properties

The Proposed Site, MMT Parcel 6, includes approximately 6.5 acres of the overall 29.5 acre MMT and, it is bounded to the north by Shore Road, to the south by Fid Kennedy Avenue, to the west by Tide Street Extension, and to the east by a new road to be constructed, proposed to be called "Bollard Way." Currently, the site is mostly asphalt-paved land and vacant. Massport manages the overall MMT site under a lease from EDIC extending until February 20, 2070. Massport's development objectives include seafood, non-seafood maritime industrial, and other complementary "uses that provide programmatic enhancement to the seafood cluster." [RFP, page 3] on all or a portion of the site (please see **Figures 1-4** thru **1-7** for existing site and context photographs, **Figure 1-8. USGS Map** and **Figure 1-9. Existing Conditions Plan**).

The history of Massport's land development within the Raymond L. Flynn Marine Park includes the following successful activities:

- 2001 - Harbor Seafood Center at 8 Seafood Way with a ground lease awarded to Pilot Development Partners, Inc.;
- 2002 - Legal Sea Foods Quality Control Center constructed and occupied: Pilot Development Partners, Inc. responsible for pre-development process;
- 2005 - Massport Marine Terminal – Development Issues and Alternatives Analysis;
- 2015 - HR&A: Massachusetts Port Authority – Boston Seafood Industry Analysis;
- 2016 - Massport issued Request for Proposals for MMT parcels, reserving adjacent Parcel 5 for Cargo Ventures LLC;

Figure 1-4. Existing Site Photos



View of Parcel 5 Through Fence on Parcel 6, Showing Tide Street Extension Construction Between Parcels



View of Boston Harbor From Parcel 6 Site

Figure 1-5. Existing Site Photos



View of Parcel 6 Towards Downtown Boston



View from Parcel 6 over Boston Harbor to East Boston

Figure 1-6. Existing Site Photos



Nearby 8 Seafood Way



Legal Sea Foods Quality Control Center, 1 Seafood Way

Figure 1-7. Existing Site Photos



Shore Road Behind 8 Seafood Way



25 Fid Kennedy Blvd (Renovation Under Construction)

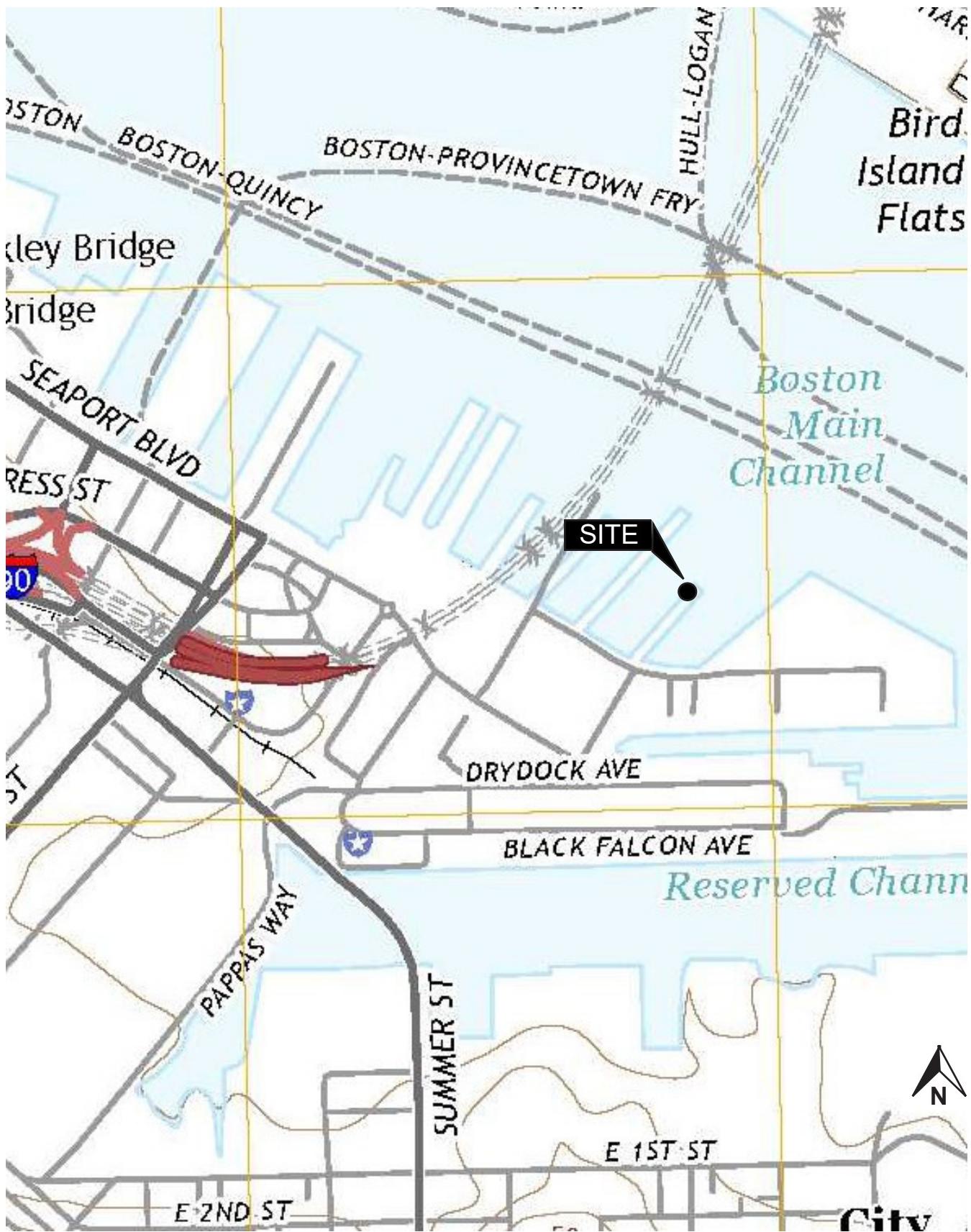


Figure 1-8. USGS Map-
Parcel 6 Development

Executive Summary



 **Parcel 6 Development**

Figure 1-9. Existing Conditions Plan

- 2016 - Massport awarded Parcel 4 to Cape Cod Shellfish and Parcel 6 to Pilot Seafood Properties III LLC, an affiliate of Pilot Development Partners, Inc.; and
- 2017 - Pilot Seafood Properties III LLC executed a Development Agreement with Massport; and Cargo Ventures LLC commenced construction of infrastructure and Tide Street roadway extension between Parcels 5 and 6.

1.2.2 Area Context

The Project Site is located within the Massport Marine Terminal (MMT) of the Raymond L. Flynn Marine Park (RLFMP), formerly the Boston Marine Industrial Park (BMIP), on the South Boston waterfront. The RLFMP was partially created through landfill projects in the 19th and 20th centuries. Some of the remaining buildings were built between 1914 and the mid-1940's as part of the South Boston Naval Annex and South Boston Army Supply Base, which operated between 1920 and 1974.

The City acquired the property from the federal government in 1977 and 1983, with the intent to promote economic growth and development. The RLFMP today contains a variety of marine-related, heavy industrial, and light industrial businesses, as well as new commercial enterprises and design showrooms. Based on the original BMIP Master Plan, adopted in 1999, and updated in 2017 through a Notice of Project Change, most of the RLFMP is reserved for maritime and general industrial purposes.

Massport negotiated a lease with the City of Boston/EDIC to obtain piers and open water on Boston Harbor through February 2070, finalized in 1980, and proceeded to fill the Harbor to create what is now the acreage of the MMT, including MMT Parcel 6, within the larger Marine Park at a cost of \$20 million. Massport continues to promote their mission for the MMT portion of the Marine Park to protect and stabilize the seafood industry cluster. The context of the immediate area is supportive of and well-suited to the scale and scope of the Proposed Project.

The buildings of MMT Parcel 6 will not only serve the seafood company owners, but will offer much-needed amenities to the maritime industrial workforce, and an over-the-counter seafood shop. The Project Site lies across from Au Bon Pain's international headquarters, and diagonally from J. C. Cannistraro's refurbished manufacturing center at 25 Fid Kennedy to the southeast. The Tide Street biolab building is to the southwest, and the maritime industrial development on MMT Parcel 5 in progress to the west. The proposed structures are similar in scale to other new buildings to be built next door at MMT Parcel 5.

The seafood industry in the neighborhood is quite busy, with a great need for expansion, and a desire for ownership of custom-designed processing space. The seafood cluster at the MMT has long needed additional cold storage space, and traffic and parking pressures remain a concern.

The Silver Line's Tide Street stop is the main public transit connection, but it does not serve seafood processing workers who begin their shifts at 4:00 AM. The Parcel 6 range of buildings will offer stability for seafood processing businesses and provide an entirely new amenity, fresh

retail seafood, to the neighborhood and the general public. The members of the International Longshoremen's Union will benefit from a shorter walking distance to their job assignments. The Project's proposed parking supply will meet a critical need for seafood industry worker parking. Street trees and bicycle parking are planned for proposed seasonal outdoor seating next to the garage building.

1.2.3 Detailed Project Program

The Proposed Project is to be developed in three sub-parcels with a prospect of 115,000 sf of seafood processing facilities at Sub-Parcels 6A and 6B, and approximately 101,300 sf of parking (280 spaces) and other accessory space at Sub-Parcel 6C. The Proponent expects to develop the sub-parcel in stages, with Boston Sword & Tuna's new facility at Sub-Parcel 6A at the outset. Sub-Parcel 6B may have two or more sub-tenants, with discussions still underway. Sub-Parcel 6C, the portion of the site fronting on Fid Kennedy Avenue, will accommodate the accessory parking garage, the accessory over-the-counter seafood shop, and the International Longshoremen's Association Union Hall. The Proponent is proposing that the garage entrance be from Fid Kennedy to reduce potential automobile conflicts with industrial trucking. Please see **Figure 1-10. Parcel 6 - Details** and **Figure 1-11. Parcel 6 – Context - in the MMT**.

Sub-Parcel 6A

Sub-Parcel 6A, adjacent to the Inner Harbor, will be developed with one structure to be occupied by Boston Sword & Tuna and will have their own purpose-built fresh seafood processing and distribution plant of approximately 48,000 sf of gross floor area and 57 onsite surface parking spaces. With a footprint of 36,000 sf on 77,000 sf of land, the structure will include a first floor with a mezzanine and a freezer bay. Overall building height is expected to be approximately 45 feet.

Sub-Parcel 6B

MPA has awarded this site to Pilot and Pilot is in discussions with companies to construct seafood industry space. The expected program is for approximately 62,000 sf of gross floor area and a building height of 50 feet or less, and 63 parking spaces.

Sub-Parcel 6C

Sub-Parcel 6C is the mixed-use accessory parking garage with approximately 101,300 sf of gross floor area including an over-the-counter seafood shop -- a place for workers and visitors to eat and purchase fresh seafood -- and the new International Longshoremen's Association Union Hall, as well as spaces for 280 cars on three parking garage decks, plus 66 surface spaces. The garage structure is the proponent's response to Massport's request for "uses that provide programmatic enhancement to the seafood cluster." [RFP, page 3]



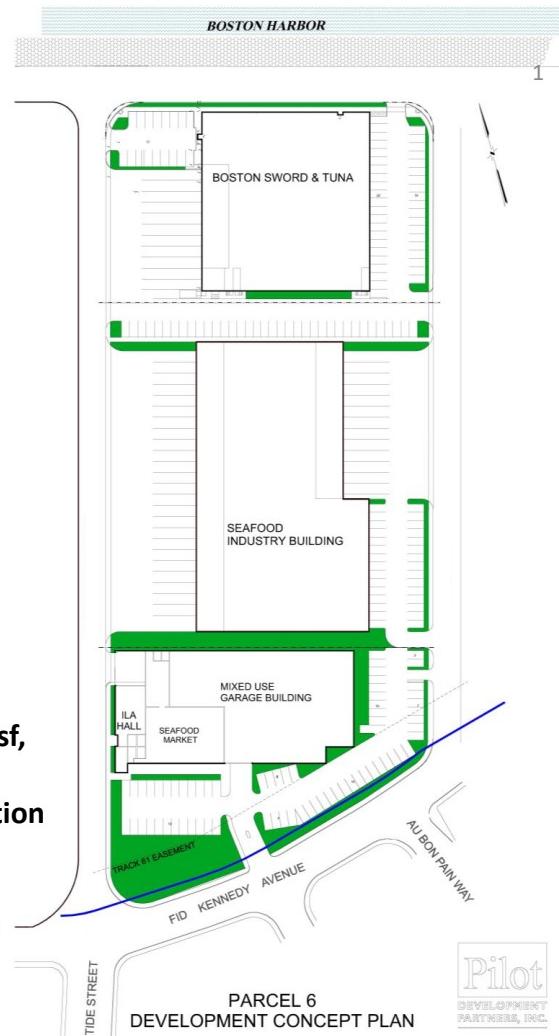
Other Seafood Processing & Cold Storage



Parcel 6A
48,000 sf, with 57 parking spaces on site

Parcel 6B
37,000 sf, with ~43 parking spaces &
30,000 sf, with ~20 parking spaces

- Parcel 6C**
- over-the-counter seafood shop: 5,000 sf, with 6 parking spaces,
 - International Longshoremen's Association Union Hall: 2,500 sf, with 60 parking spaces);
 - Total 66 surface and 280 garage spaces



Pilot
DEVELOPMENT PARTNERS, INC.

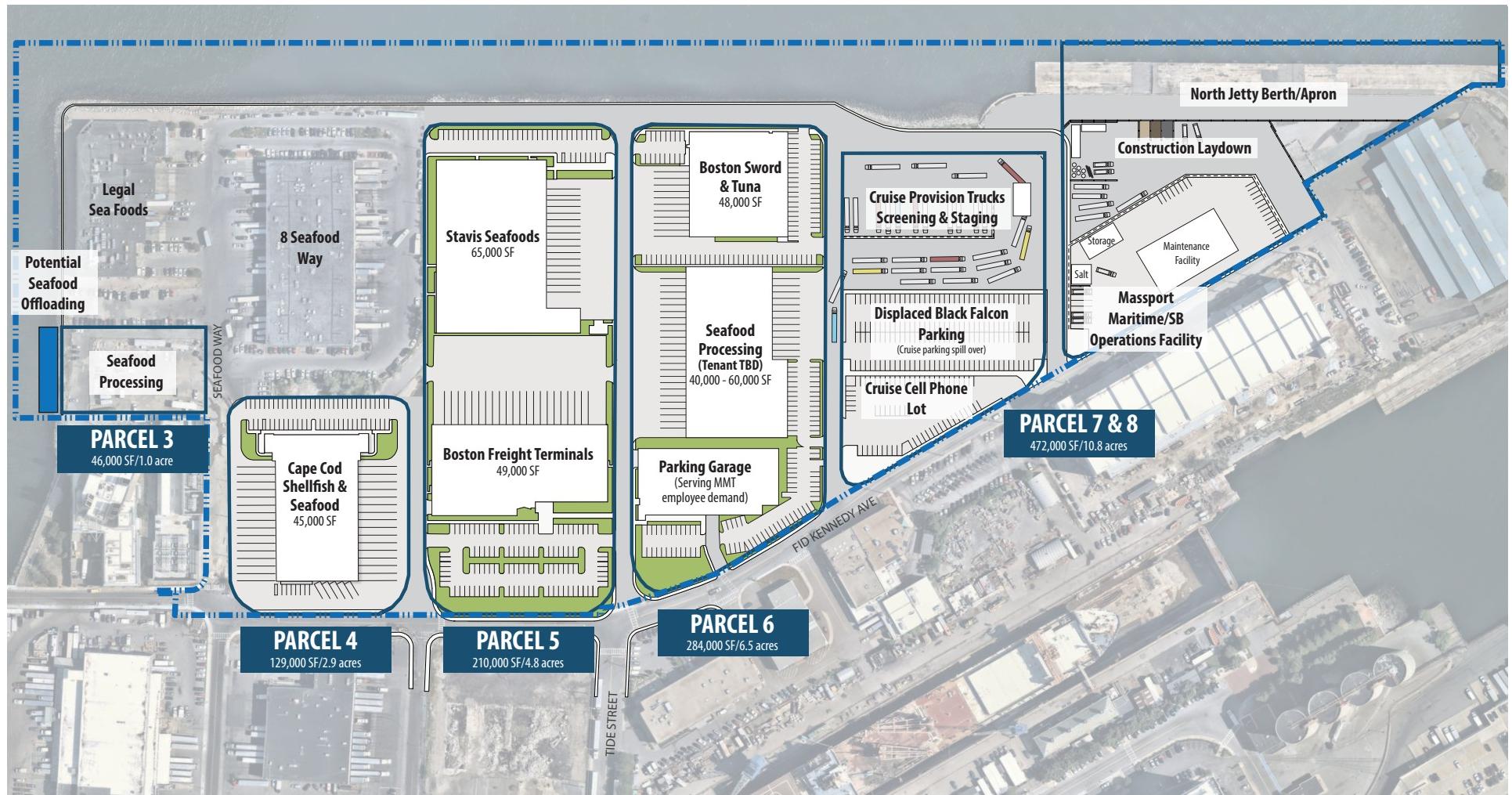


Figure 1-11. Parcel 6 Context in the MMT

Executive Summary

See Project Dimensions in **Table 1-1** below.

Table 1-1. Approximate Project Dimensions of Proposed Project

Project Dimensions	Overall Dimensions (All Sub-parcels)	Sub-Parcel 6A	Sub-Parcel 6B	Sub-Parcel 6C
Lot Area	6.51 acres / 283,689 sf.	1.77 acres / 77,365 sf	3.08 acres / 133,996 sf	1.66 acres / 72,328 sf
Gross Floor Area	219,250 sf	48,070 sf	62,000 sf	104,180 sf
Floor Area Ratio	0.772 FAR	----	----	----
Floors	----	1 Floor plus mezzanine	1 Floor plus mezzanine	3-1/2 Parking Levels
Building Height*	-----	Approx. 45 ft.	Less than 50 ft.	48 ft.

*Height is calculated from the average grade of each sub-parcel.

The Parcel 6 circulation plan is designed to create a safe access/egress to the proposed accessory garage on Sub-Parcel 6C which is designed to be accessed from Fid Kennedy Avenue.

1.3 Raymond L. Flynn Marine Park Master Plan/ Chapter 91 Waterways Licensing

The Project Site is located within the Raymond L. Flynn Marine Park, which, in turn, is located with the South Boston Designated Port Area (“DPA”). The Master Plan for the RLFMP (formerly Boston Marine Industrial Park) was approved in 1999, and a Chapter 91 Master License (No. 10233) was issued for the RLFMP in 2005. Because it is comprised of water-dependent industrial uses on land leased by Massport from the City of Boston, the Proposed Project complies with the 1999 Boston Marine Industrial Park Master Plan, as well as with the

Master Plan Update submitted by the BPDA to the Commonwealth in December 2017, and the Chapter 91 Master License.

“Any [Designated Port Area (DPA)] parcel within the [RLFMP], …may be used in whole or part for water-dependent industrial use and accessory uses thereto, as defined in 310 CMR 9.02....” (RLFMP Master c. 91 License [No. 10233], Special Condition #2.) MMT Parcel 6 is a portion of “Parcel M-1” as designated in the RLFMP Master c. 91 License, and Parcel M-1 is located within the South Boston DPA. (Id., Appendix. A.) Parcel M-1 is “dedicated exclusively to water-dependent industrial or accessory uses thereto.” (See RLFMP c. 91 Master License, Special Condition #2(b) [emphasis added].)

Under Chapter 91 regulations, “Water-dependent Use” means a use as specified at 310 CMR 9.12(2). (310 CMR 9.02). In turn, 310 CMR 9.12(2) requires MassDEP to find that “commercial fishing, shell fishing, and other seafood and fish processing facilities for fish, shellfish, and other seafood” is a water-dependent-industrial use (310 CMR 9.12(2)(b)(4).¹). The Longshoreman’s Association Union Hall is not seafood-related, however, it is accessory to facilities for the transfer between ship and shore, and the storage of, bulk materials or other goods transported in waterborne commerce, or associated with commercial passenger vessel operations, which are both water-dependent industrial uses (id., subds. (b)(1) and (b)(2)).

The Project Proponent will confirm with MassDEP Waterways that the Proposed Project comprises water-dependent industrial and accessory uses, in compliance with the RLFMP Master Chapter 91 License. Pursuant to 310 CMR 9.03(3)(a), *Activities of the Massachusetts Port Authority*, Massport may undertake any project consisting entirely of water-dependent-industrial uses or accessory uses thereto on previously filled or flowed tidelands within the Port of Boston, without written authorization in the form of a license or permit from the MassDEP Waterways.

1.4 Raymond L. Flynn Marine Park, formerly Boston Marine Industrial Park

The Raymond L. Flynn Marine Park (formerly the Boston Marine Industrial Park) is a 191-acre industrial park located in a part of South Boston known as Commonwealth Flats, formerly an expanse of intertidal flats. The Commonwealth Flats area was filled by the Commonwealth for economic development purposes in the late 1800s and early 1900s, when land, piers and channels were created. In 1920, the U.S. Department of Defense acquired a portion (including all of what is now the RLFMP) in two separate purchases – 167 acres to be used as the South Boston Naval Annex and 58 acres for use as South Boston Army Annex. In 1977, the City of Boston, acting through the EDIC, secured ownership of the 167-acre South Boston Naval Annex from the U.S. Department of Defense. The “Marine Industrial Park” as the area came to be known, was created to provide jobs for City residents and enhance the City’s economy. In 1983, the EDIC purchased another 24 acres that were formerly part of the South Boston Army Base. Since the initial

¹ The facility to be built for Boston Sword & Tuna at Sub-Parcel 6A is planned to include a lobster holding system, which requires a seaward connection with water intake and outfall. Discharge pipes, outfalls, tunnels, and diffuser systems for conveyance of effluents to a receiving waterway is a water-dependent industrial use in and of itself. (See 310 CMR 9.12(2)(a)(13).

purchase of the Naval Annex, the City has made a substantial public investment in the park, including more than \$55 million of improvements to the park's infrastructure. These investments have in turn leveraged more than \$170 million in private investment by tenants in upgrading and constructing new facilities within the park. BRA/EDIC achievements at and improvements to the BMIP include:

- Cleared land and demolished buildings to prepare industrial sites.
- Brought more than 3.3 million square feet of reused military facilities onto the market as industrial space.
- Installed miles of new or upgraded utilities (water, gas, electric, telecom)
- Rebuilt and built miles of existing roadways with granite curbing, sidewalks, and storm drainage.

The South Boston entrance to the Third Harbor Tunnel (now called the “Ted Williams Tunnel”) has substantially enhanced the marketability of the park. As EDIC has managed and leased the facilities at the RLFMP to promote maritime uses, the park is and will remain a tremendously valuable asset to the South Boston community, the City of Boston, and the Commonwealth {adapted from <http://www.bostonmarineindustrialpark.com/about/history-of-the-park/> circa March 9, 2012}.

1.5 Massachusetts Port Authority (“Massport”)

To attract industry, investment capital, and commerce to the Commonwealth, the State Legislature created the Massachusetts Port Authority in 1956. As the primary mover of products and people to and through New England, Massport's continuing mission has been both complex and challenging:

- To provide air, sea, and bridge facilities of the highest quality and efficiency for Massachusetts and New England;
- To promote economic growth in Massachusetts and regionally; and
- To minimize any adverse effects from operations and facilities on neighboring communities {adapted from “*Massport: Moving New England*” published 1988}.

1.5.1 Massport Marine Terminal (“MMT”)

The Harbor Gateway Terminal in South Boston includes the approximate 40-acre Massport Marine Terminal located within the South Boston Designated Port Area (DPA) and includes:

- 24-30 Fid Kennedy Avenue; and
- A 40-acre parcel located in the Raymond L. Flynn Marine Park leased to Massport by EDIC to 2070.

Massport and EDIC executed a lease effective in February 1980 for large portions of the Boston Marine Industrial Park in Boston’s Inner Harbor, formerly the South Boston Naval Annex, intended to be filled in and made available for marine industrial uses: Containerport and other maritime-related activities, including without implied limitation (a) the storage of salt, lumber,

motor vehicles and other cargoes shipped to or being shipped from the Port of Boston by water, and (b) all the rights and uses of a terminal operator with respect to Massport's leasehold.

1.5.2 *Massport Request for Proposals*

Massport's Request for Proposals issued in February 2016 sought development of the above, and awarded rights to developer MMT Parcel 6 to the Project Proponent in support of Massport's agency mission. The Project Proponent's bid for MMT Parcel 6 specifically respected to Massport's request for "uses that provide programmatic enhancement to the seafood cluster." [RFP, page 3].

1.6 Boston Seafood Industry

Based on the Massachusetts Port Authority's Boston Seafood Industry Analysis (November, 2015), the South Boston Waterfront contains a seafood industry cluster that employs more than 1,450 workers throughout the Fish Pier, MMT, other portions of the RLFMP, and the industrial area at Widett Circle / Newmarket Square. The cluster has grown in recent years, with higher volumes (127%) both landed locally and imported, as well as increased employment (56% in Suffolk County) in wholesaling operations. The cluster benefits from consistent supply, efficient truck distribution, and strong personal relationships between owners. The Seaport is a central location to regional ports, has efficient highway access, and has proximity to both an international airport and a large customer base. Please see **Figure 1-12. Boston Seafood Analysis Study** for the front cover from that study.

The analysis found that Boston's competitive advantages put its seafood cluster in a position to leverage trends in both positive supply and demand within the industry and marketplace. Massport issued their February 2016 Request for Proposals to respond to the demand identified in this study, and subsequently selected the Proponent, certified as a Minority Business Enterprise, based on the proposal and on Pilot's extensive seafood industry experience in the MMT.

Four strategies were identified as being of help to grow the South Boston Waterfront seafood cluster including:

- Creating new or expanded facilities provide businesses with the opportunity to grow;
- Key infrastructure improvements increasing supply chain efficiency;
- Introduction of retail shaping the brand of seafood within the changing South Boston Waterfront; and
- Retention and expansion of seafood-industry businesses to sustain and multiply the cluster benefits.

Particular features that help grow the seafood cluster are:

- Access to Logan;
- Business-to-business trade;
- Proximity to customer base; and
- One-stop shopping

There is strong demand for modern space, especially with efficient customization for each company's equipment and processes. Modern space can also be designed to comply with the latest hygiene standards.



November 2015

Massachusetts Port Authority

Boston Seafood Industry Analysis Executive Summary

HR&A

Analyze. Advise. Act.

DRAFT

MLF
CONSULTING LLC

Figure 1-12. Boston Seafood Analysis Study

Executive Summary

1.7 Summary of Project Impacts and Mitigation

1.7.1 Design Objectives

Parcel 6's design objectives include:

- To recognize, respect and reinforce the existing scale and character of the RLFMP;
- To make full use of the capacity of the land;
- To provide a limited, but valuable interface between the seafood industry and the public on Sub-Parcel 6C; and
- To reinforce the essential character of Fid Kennedy Avenue as a gateway to the mixed-use Seaport related uses

The urban design drawings and LEED v4 for BD+C Checklist are included at the end of **Section 3.0.**

Site Planning, Programming & Building Design

General goals for Parcel 6 planning include the following:

- Seafood industry use and support of local seafood industry cluster;
- Increased seafood industrial land use intensity;
- Support of larger seafood employers;
- Sub-parceling for seafood company ownership potential;
- Support facilities, including parking, food service and union hall; and
- Truck loading and circulation.

The maritime (seafood) industrial use of Parcel 6 and the MMT is an essentially non-urban use; it is port and airport-related, but only dependent on the City of Boston for infrastructure and as a centralized point of distribution. Employees are unable to make use of the public transportation system because of the 4:00-5:00 AM start time, creating unusual parking pressure. Supply and distribution for larger seafood companies is both national and international.

Small land area for this type of development in the Port has made entry for the seafood industry difficult. Parcel 6 planning seeks to maximize that limited opportunity.

Sub-Parcel 6A - Boston Sword & Tuna (BST)

The BST building design is compact and functionally efficient, with a well-organized internal flow of goods, starting and ending at the shipping/receiving. This supports operational, energy and cost efficiency.

The external design of the building is based on a highly energy-efficient envelope, incorporating both insulated metal panel (SIPS), and glass curtain wall. The curtain wall is unusual in this

building type but reflects the increased administrative/sales and support facilities required for the modern seafood plant.

Sub-Parcel 6B – User to be Determined

Sub-Parcel 6B is planned for seafood industry use, similar to Sub-parcel 6A. The building footprint shown on the Development Concept Plan is intended to represent the potential capacity of the sub-parcel. Please see **Figure 1-3. Parcel 6- Preliminary Development Concept**.

An additional use component, which will be desirable for this sub-parcel, are commercial freezer/cooler facilities. Currently, the local seafood industry needs to have their own internal facilities, or travel to suburban locations for this purpose. Several seafood industry companies have expressed interest in this site. A single building is shown on the Plan, but in consideration of the size of the sub-parcel, this may further sub-divided into two separate buildings, depending on user commitments.

Sub-Parcel 6C – Parking and Support

Sub-Parcel 6C is planned for additional maritime industrial parking, and other support services. The parking will serve both Parcel 6 and the rest of the MMT. Ancillary food services and a new Union Hall for the International Longshoremen's Association (ILA) will also be incorporated.

The mixed-use parking structure is proposed as a pre-cast concrete building. Dimensions incorporate a back-side parking ramp, allowing the street-facing portions of the building to have horizontal floor levels. Fid Kennedy Avenue and the Tide Street Extension elevations will include metal and/or fabric panels to break up the surface and introduce color.

1.7.2 *Landscape Design*

Planting species which provide four-season interest, tolerance of coastal winds, salt air, and drought are planned for this development. New plantings along Fid Kennedy Avenue and Tide Street's extension will provide attractive frontage and a sense of entrance. Robust tree planting in front of the garage along Fid Kennedy Avenue will offer a vegetative buffer. Plantings in parking islands will provide pervious area and assist in visually breaking up the paving area.

Outdoor tables, seating and specialty paving are planned for the public over-the-counter seafood shop entrance. Bike racks will be provided throughout the development to encourage alternative modes of transportation to the development. Stormwater runoff will be collected in vegetated rain gardens and infiltrated. Properly-shielded site lighting with low-energy requirements (i.e., complying with night-sky protection standards) will be introduced to illuminate loading areas, entrances and parking areas.

1.7.3 Sustainable Design

To meet the City of Boston Requirements the project is demonstrating the compliance with the LEED BD&C v4 criteria. The project Sub-Parcels 6A and 6B are currently tracking 46 points in the YES column with 12 in the study column. Further study over the coming weeks and months will determine final credit achievement. We have outlined in the narrative below, how the project intends to achieve the prerequisites and credits for the LEED BD&C v4 certification. Given the use of this facility we are critically reviewing our ability to meet the LEED prerequisites, especially the Minimum Energy Performance. We will likely need to separate the seafood processing facility from the office support space to comply with this prerequisite. We will provide updates as we work through the design with the mechanical and electrical engineers.

In conformance with the Mayor's 2011 Climate Action Leadership Committee's recommendations, the BPDA requires projects subject to Boston Zoning Article 80 Large Project Review to complete a Resiliency Checklist to assess potential adverse impacts that might arise under future climate conditions, and any project resiliency, preparedness, and/or mitigation measures identified early in the design stage. The responses to the Resiliency Checklist (Climate Change Questionnaire) is provided in **Appendix C**.

Boston signed on to the Green Communities Act of 2008, which requires compliance with the Stretch Energy Code. The Stretch Energy Code applies to both residential and commercial buildings and, specifically, to new commercial buildings over 5,000 square feet in size. The City of Boston adopted the Stretch Energy Code, which became mandatory on July 1, 2011.

Effective January 1, 2017, the Stretch Energy Code now requires 10 percent greater energy efficiency compared to the state's energy code (the "Base Code"). This PNF assesses the energy performance of the Project using the Stretch Energy Code requirements in effect as of January 1, 2017 in order to demonstrate the Project can meet such requirements.

1.7.4 Pedestrian Level Wind Conditions

The height of the proposed structures does not exceed 50 feet. Wind conditions are expected to be similar to that of existing buildings along Fid Kennedy Avenue and Shore Road.

1.7.5 Shadow Impact Analysis

Proposed heights will vary between approximately 45 and 50 feet. Sub-Parcel 6A will be setback from Shore Road and will not cast shadow on the edge of the watersheet along Boston Harbor. Overall, the Project's shadow impacts will be consistent with current patterns and will not adversely impact the Project site and surroundings.

1.7.6 Daylight Analysis

Although the Proposed Project would cause an increase in daylight obstruction when compared to the existing vacant site condition, the Proposed Project was designed to be of a similar massing to existing buildings along Fid Kennedy Avenue, Shore Road and the surrounding MMT uses.

1.7.7 Solar Glare

It is not expected that the Proposed Project will include the extensive use of reflective glass or other reflective materials on the building facades that would face the sun that would result in adverse impacts from reflected solar glare.

1.7.8 Air Quality Analysis

The Proposed Project is a water-dependent marine industrial project on land leased to Massport by the City of Boston and the Project is compliant with the 1999 Boston Marine Industrial Master Plan, Updated 2017, and the 2005 Boston Marine Industrial Park Chapter 91 Master License. As such, it is anticipated that air quality levels will be consistent with those developments within the RLFMP including the BPDA approved adjacent Parcel 5 project.

1.7.9 Noise Analysis

The Proposed Project is a water-dependent maritime industrial project on land leased to Massport by the City of Boston and the Project is compliant with the 1999 Boston Marine Industrial Master Plan, Updated 2017, and the 2005 Boston Marine Industrial Park Chapter 91 Master License. As such, it is anticipated that future noise levels will be consistent with those developments within the MMP including the BPDA approved adjacent Parcel 5 project.

1.7.10 Stormwater Management and Water Quality

Two outfalls are available for surface water drainage for Parcel 6. One, a new drainage outfall for which drainage stubs are being provided to the subject parcel on Tide Street, and the second, an existing drainage system in Fid Kennedy Avenue which ultimately terminates in tidal discharge. It has already been pre-determined that Boston Water and Sewer Commission (BWSC) wants 40% of the surface water flows to discharge to Tide Street, and 60% to discharge toward Fid Kennedy Avenue. Consequently, the discharge of roof runoff and pavement areas will be separated accordingly. Please see **Section 4.2** for additional information.

1.7.11 Solid and Hazardous Waste

Solid Waste

During the preparation of the Site, debris including asphalt, trash, and demolition debris will be removed from the Project Site. The Proponent will ensure that waste removal and disposal during

construction and operation will be in conformance with the City and DEP's Regulations for Solid Waste.

In order to meet the requirements for the Boston Environmental Department and the LEED™ rating system, the Project will include space dedicated to the storage and collection of recyclables, including dedicated dumpsters and bins in a trash room. The recycling program will meet or exceed the City's guidelines, and provide areas for waste paper and newspaper, metal, glass, and plastics (21 through 27, co-mingled).

Hazardous Waste

Based on a subsurface investigation conducted on the site between November 2006 and April 2007 by ATC for Massport for the entire MMT property which totaled 32.4 acres, the Phase I Environmental Site Assessment completed by TRC in January, 2018, indicated that reportable conditions were detected in soil (beryllium, lead and zinc) and groundwater (nickel, naphthalene and phenanthrene) and reported to MassDEP on April 17, 2007 at which time RTN 3-26768 was assigned.

At the time ATC prepared a Class B-2 Response Action Outcome (RAO) Statement dated November 25, 2008 on behalf of Massport. The RAO was supported by an Activity and Use Limitation (AUL) on the MMT property, including the Proposed Site on November 6, 2008. Based on the Site being subject to the AUL on the entire MMT property, this condition is considered a Controlled Recognizable Environmental Condition (CREC).

1.7.12 Geotechnical Analysis

Based on the provided existing borings logs from the South Boston Annex, the site was dredged to an approximate elevation of -38 to -40 feet for the former U.S. Navy pier at this location. The Navy pier was subsequently demolished, and the area was filled in to an approximate elevation of +16 feet Boston City Base ("BCB"). During construction of the Central Artery/Tunnel project, portions of Parcel 6A were used to store excavated material backfill and other construction materials. After completion of the Central Artery/Tunnel project, the area was paved, and has since been used, sporadically, as a parking lot.

GTR oversaw a subsurface exploration program; which consisted of four (4) borings. The subsurface investigation program was completed between January 3 and 16, 2018 by Soil Exploration Corp. of Leominster, MA. A Mobile B-57 truck-mounted drill rig was used to perform the borings. A drive and wash rotary drilling method advanced the borings to the top of subsurface rock.

According to the borings, the subsurface conditions at the site primarily consist of 40 to 50 feet of uncontrolled granular and/or cohesive fill, overlying a relatively thin layer of clay/glacial till, over Argillite bedrock. Multiple granite block obstructions and cobbles were encountered within the fill during the course of boring. The top of bedrock ranges from elevation approximately -39 to -50 ft BCB (55 feet to 66 feet below ground surface).

The primary geotechnical engineering concern at the site relates to foundation performance with respect to the uncontrolled, thick, variable (cohesive/granular) fill layer. Relatively large total and differential settlements and/or bearing capacity failure may occur if shallow foundations are used. Therefore, deep foundations appear to be necessary for supporting the proposed structure loads and transferring them to the dense till layer and/or bedrock layer below the fill/clay.

Due to the obstructions that were encountered within the fill, driven piles are not recommended. Instead, drilled micro piles (DMPs) are the recommended deep-foundation option as they can be drilled through the granite block obstructions. Other deep foundations types were considered but not evaluated, as they were deemed either not technically appropriate for the subsurface conditions or not economically feasible. Please see **Section 4.4** for additional information.

1.7.13 Construction Impacts Analysis

Section 4.5 describes impacts likely to result from the Proposed Project's construction and the steps that will be taken to avoid or minimize environmental and transportation-related impacts. The Proponent has employed Commodore Builders, a construction manager, who will be responsible for developing a construction phasing and staging plan and for coordinating construction activities with all appropriate regulatory agencies. The Project's geotechnical consultant will provide consulting services associated with foundation design recommendations, prepare geotechnical specifications, and review the construction contractor's proposed procedures.

Sub-Parcel 6A construction is expected to last approximately 15 months, beginning in the second quarter of 2018 and reaching completion, with occupancy in the third quarter of 2019

The Proponent will comply with applicable state and local regulations governing construction of the Project. The Proponent will require that the general contractor comply with the Construction Management Plan ("CMP") developed in consultation with and approved by the Boston Transportation Department ("BTD"), prior to the commencement of construction. The construction manager will be bound by the CMP, which will establish the guidelines for the duration of the Project and will include specific mitigation measures and staging plans to minimize impacts on abutters.

Most construction activities will be accommodated within the current site boundaries. Details of the overall construction schedule, working hours, number of construction workers, worker transportation and parking, number of construction vehicles, and routes will be addressed in detail in a Construction Management Plan to be filed with BTD in accordance with the City's transportation maintenance plan requirements. To minimize transportation impacts during the construction period, there will be limited construction worker parking on-site, carpooling will be encouraged, secure on-site spaces will be provided for workers' supplies and tools so they do not have to be brought to the site each day, and subsidies for MBTA passes will be considered. The

Construction Management Plan to be executed with the City prior to commencement of construction will document all committed measures.

1.7.14 Wetlands/Flood Hazard Zone

According to the USGS topographic map, Boston South, MA quadrangle dated 2012, the Parcel 6 Site is approximately 5 feet above mean sea level (MSL), and local topography slopes are generally flat. Parcel 6 abuts coastal bank and lies partially within the buffer zone of the coastal bank. In addition, the site is partially located in a Federal Emergency Management Agency (FEMA) 100-year flood zone. The existing Project Site is a part of a wetland resource area regulated by the Massachusetts Wetland Protection Act. Based on the Preliminary Flood Insurance Rate Maps (FIRM) for Suffolk County, the Project site is not located in a special flood hazard area or floodway.

1.7.15 Historic Resources Component

According to files at the Massachusetts Historical Commission, the project site is located within the Boston Army Supply Base, an area included in the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth. Massport and EDIC executed a lease effective in February 1980 of the Jetty Area and Water Area in the Boston Marine Industrial Park in Boston's Inner Harbor (formerly the South Boston Naval Annex), intended to be filled in and made available for Permitted Uses. The project site is currently vacant land, and it is not expected that the Project will cause adverse impacts on the historic or architectural elements of nearby historic resources outside the Project Site (see **Section 5.0**).

1.7.16 Infrastructure Systems Component

An infrastructure system's analysis (**Section 6.0**) was completed by Hayes Engineering, the Project's Civil Engineer. The existing infrastructure surrounding the site appears sufficient to service the needs of the Proposed Project, subject to further discussion with the Boston Water and Sewer Commission related to adding a Sanitary Sewer Lift Station possibly on Parcel 6C. This section describes the existing sewer, water, and drainage systems surrounding the site and explains how these systems will service the development. This analysis also discusses any anticipated Project-related impacts on the utilities and identifies mitigation measures to address these potential impacts.

1.7.17 Tidelands/Chapter 91 Component

As a water-dependent industrial project on land leased by Massport from the City of Boston, the Project is compliant with the 1999 Boston Marine Industrial Park Master Plan (as well as the Notice of Project Change to it filed by the BPDA in December 2017), and also the Chapter 91 Master License issued for the Marine Park in 2005. As described in more detail in **Section 1.3**, above, the Project Proponent will confirm with MassDEP Waterways that the Proposed Project

comprises water-dependent industrial and accessory uses, in compliance with the RLFMP Master Chapter 91 License. Moreover, pursuant to 310 CMR 9.03(3)(a), *Activities of the Massachusetts Port Authority*, Massport may undertake any project consisting entirely of water-dependent-industrial uses or accessory uses thereto on previously filled or flowed tidelands within the Port of Boston, without written authorization in the form of a license or permit from the MassDEP Waterways.

1.7.18 Transportation Component

Section 7.0 presents the comprehensive transportation study completed by Howard Stein Hudson (HSH) for the proposed Project in conformance with the BTD Transportation Access Plan Guidelines (2001). The study analyzes existing conditions within the Project study area, as well as conditions forecast to be in place under the seven-year planning horizon of 2025.

Traffic operations analysis was conducted for the nearby intersections listed below:

- Fid Kennedy Avenue/Tide Street (unsignalized);
- Northern Avenue/Tide Street (unsignalized); and
- Northern Avenue/Harbor Street (unsignalized).

The seafood processing businesses to be located on Sub-Parcels 6A and 6B will generate employee auto trips and truck trips. Employee shifts will start prior to 6:00 a.m. and end in the afternoon. Therefore, most employee trips will occur outside of the typical morning and evening peak periods. Truck activity is expected to occur between about 6:00 a.m. and 4:00 p.m. Overall, the Project is expected to generate approximately 41 new vehicle trips during the a.m. peak hour and 31 new vehicle trips during the p.m. peak hour. The Project's new vehicle trips will not impact traffic operations in the study area.

In assessing the parking needs associated with the seafood processing industry, several factors make Parcel 6 and the adjoining MMT parcels unique compared to other businesses in the RLFMP and the larger South Boston Waterfront area:

- Because workers in seafood processing start work as early as 4:00 or 5:00 a.m., the use of transit services is not an option and most employees must travel via private automobile.
- Continued efficiencies in seafood processing have resulted in an increased demand for employees and an increased density of employees.
- Many industrial employees used to live in neighborhoods closer to the RLFMP, but as housing costs have increased, employees have moved further out from the City, reducing the opportunities to walk or carpool to the waterfront.
- A meeting hall for the International Longshoremen's Association (ILA) will be located in the ground floor of Sub-Parcel 6C parking garage and provide a gathering place for ILA workers

prior to receiving daily assignments within the RLFMP. Although the meeting hall is of modest size, at 2,500 sf of GFA, sixty surface parking spaces are required to serve the ILA daily demand.

Combined, these factors result in a parking demand of approximately 260 spaces for just Parcel 6, immediately upon occupancy. This demand will be served by 186 surface spaces on the three sub-parcels and by 74 spaces within the 280-space garage on Sub-Parcel 6C. As employees are added, the demand for spaces will increase. On Sub-Parcel 6A, Boston Sword & Tuna expects to add employees soon after they move to their new facility. While the garage will serve demand from Parcel 6 uses, it will also serve parking demands from other adjacent MMT parcels that do not (or will not in the future) have adequate parking supply to serve the continuing growth of maritime businesses and industrial uses in the MMT.

Access to surface parking on Sub-Parcel 6A will be provided along the Tide Street extension, Bollard Way, and Shore Road. Sub-Parcel 6A will have truck loading bays along the east side of the building, which will be accessed via the Tide Street extension. Access to surface parking on Sub-Parcel 6B will be provided along Bollard Way. Sub-Parcel 6B will have truck loading bays along the east and west side of the building, which will be accessed via the Tide Street extension and Bollard Way. Vehicular access to the parking garage structure of Sub-Parcel 6C will be provided on Fid Kennedy Avenue.

The location of the garage was the result of many operational and design considerations. The odd shape of Sub-Parcel 6C would yield an inefficient site for a seafood processing or cold storage facility. Further constraints are imposed by the right-of-way required for Track 61.

Consideration was given to placing the garage on Sub-Parcel 6B, and it was determined that the other uses would not be feasible: the over-the-counter seafood shop would have very limited visibility from passers-by, and visitors would be compelled to mix with truck traffic, creating conflict and safety risks. Similarly, the Union members would face a more difficult pedestrian route, again in terms of safety.

The location of access to the parking garage on Fid Kennedy Avenue is intended to provide convenient, visible access for all users of the garage, while minimizing conflicts with the truck maneuvers on Tide Street Extension and on the road provisionally referred to as Bollard Way.

The overall Project also anticipates that the company owners of Sub-parcels 6A and 6B will provide secure bicycle parking at each building.

While the nature of work shifts in seafood processing requires most employees to travel by auto, the Proponent is committed to implementing Transportation Demand Management (TDM) measures to minimize automobile usage and Project related traffic impacts. TDM will be facilitated by the nature of the Project (which does not generate significant peak hour trips). On-site management will keep a supply of transit information (schedules, maps, and fare information)

to be made available to the employees of the site. The Proponent will explore the feasibility of providing electric vehicle charging station(s) within the garage and will continue to work with the City to develop a TDM program appropriate to the Project and consistent with its level of impact.

1.7.19 Responses to Climate Change Questionnaire

Please see **Appendix C** for the Proponent's Responses to the City of Boston's Climate Change Questionnaire.

1.7.20 Responses to City of Boston Accessibility Checklist

Please see **Appendix D** for the Proponent's Responses to the City of Boston Accessibility Checklist for the three Sub-Parcels (6A, 6B, and 6C).

2.0 GENERAL INFORMATION

2.1 Applicant Information

2.1.1 Project Proponent

The express purpose of the Proponent, Pilot Seafood Properties III LLC, is to complete the MMT Parcel 6 development Project, and thereafter to administer its sub-lease for Parcel 6 with Massport until February 20, 2070, or such other time as the sub-lease may be extended.

The project proponent's manager, Pilot Development Partners, Inc., has over 20 years of experience successfully developing marine industrial projects in the RLFMP including several other seafood industry buildings in the Flynn Marine Park, with two buildings at New Boston Seafood Center, 8 Seafood Way's multi-tenant seafood-processing building and the Legal Sea Foods Quality Control Center.

The seafood companies now planning construction of their buildings on sub-parcels leased from the Proponent will own their buildings on the ground-leased land as ground-lease improvements. The mixed-use garage structure has already received equity investor expressions of interest, and the Proponent anticipates exploring other financing options before applying for standard commercial lending.

2.1.2 Project Team

Project Name	MMT Parcel 6, South Boston
Property Developer	<p>Pilot Seafood Properties III LLC Pilot Development Partners, Inc., Manager 6 Pleasant Street, Suite 508 Malden, MA 02148</p> <p>Eden Milroy, President Tel: 781-771-4881 emilroy@pilotdevelopment.com</p> <p>Ms. Kathryn Maynes, Vice President Tel : 617-542-0450 kmaynes@pilotdevelopment.com</p>

MMT PARCEL 6, SO. BOSTON

Property Lessor	<p>Massachusetts Port Authority One Harborside Drive, Suite 200S East Boston, MA 02128-2909</p> <p>Andrew Hargens Deputy Director, Portfolio & Asset Management Tel: 617-568-3103</p>
Article 80/MEPA Permitting Consultant	<p>Mitchell L. Fischman (“MLF”) Consulting LLC 41 Brush Hill Road Newton, MA 02461</p> <p>Mitchell L. Fischman, Principal Tel: 781-760-1726 mitchfischman@gmail.com</p>
Legal Counsel	<p>Dalton & Finegold LLP 183 State Street, 5th Floor Boston, MA 02109</p> <p>Jared Eigerman Tel: 617-936-7777 jeigerman@dfllp.com</p>
Architects and Engineers	<p>Design Group (For Parcel 6A Boston Sword & Tuna) 5 Chenell Drive, Box 3 Concord, NH 03301 Tel: 603-225-0010</p> <p>STV, INC. (Marine Facilities Designers) (For All Parcel 6 Sub-Parcels) One Financial Center Boston, MA 02110</p> <p>Michael Cassavoy Tel: 617-303-1182 Michael.cassavoy@stvinc.com</p> <p>Paul Tyrell Tel: 617-947-1319 ptyrell@stvinc.com</p> <p>DESMAN Design Management (For Sub-Parcel 6C-Mixed Use Garage) 18 Tremont Street, Suite 300 Boston, MA 02108 Tel: 617-778-9882</p> <p>Wesley Wilson wwilson@desman.com</p> <p>Anna Loc aloc@desman.com</p>

MMT PARCEL 6, SO. BOSTON

Landscape Architect	<p>Ray Dunetz Landscape Architecture 179 Green Street Boston, MA 02130</p> <p>Ray Dunetz Tel: 617-524-6265 rd@raydunetz.com</p>
Transportation Planner / Engineer	<p>Howard Stein Hudson 11 Beacon Street, Suite 1010 Boston, MA 02108</p> <p>Elizabeth Peart Tel: 617-482-7080 epeart@hshassoc.com</p>
Civil Engineer/ Infrastructure	<p>Hayes Engineering (All Parcel 6 Sub-Parcels) 603 Salem Street Wakefield, MA 01880</p> <p>Peter Ogren Tel: 781-246-9686 pogren@hayeseng.com</p>
Sustainability/LEED Consultant	<p>Soden Sustainability Consulting 19 Richardson Street Winchester, MA 01890</p> <p>Colleen Ryan Soden, LEED AP BD+C Tel: 617-372-7857 colleen@sodensustainability.com</p>
Geotechnical	<p>Geosciences Testing & Research 55 Middlesex Street North Chelmsford, MA 01863</p> <p>Les Chernauskas Tel: 978-251-9395 les@gtrinc.net</p> <p>Curtis George Tel: 978-677-6867 curtis@gtrinc.net</p>

MMT PARCEL 6, SO. BOSTON

Environmental / 21E	<p>TRC ENVIRONMENTAL Wannalancit Mills 650 Suffolk Street, Suite 200 Lowell, MA 01854</p> <p>Tracy Dionne Tel: 978-656-3503 tdionne@trcsolutions.com</p> <p>Matthew Robbins Tel: 978-888-5196 MERobbins@trcsolutions.com</p>
Surveyor	<p>Arago Land Consultants LLC (WBE) 31 Old Nashua Road Suite 1 Amherst, NH 03031</p> <p>Cynthia Boisvert Tel: 603-732-0008 cdb@aragoland.com</p>

2.1.3 Legal Information

Proponent Control of Site:

The Proponent has been designated by Massport to develop Parcel 6 as proposed at the MMT and as voted by Massport's Board of Directors on November 17, 2016

Legal Judgments or Actions Pending Concerning the Proposed Project:

None exist.

History of Tax Arrears on Property Owned in Boston by the Applicant:

None.

Nature and Extent of Any and All Public Easements:

The Proponent has accommodated within its design the Track 61 right-of-way indicated by Massport, and awaits further advice regarding the nature and extent of the Track 61 right-of-way. The Proponent is responding to references in the Massport RFP issued February 2016 including that "The preferred rail right-of-way extends along the length of Fid Kennedy Avenue" and "While Track 61 currently services the BMIP, it terminates approximately 900 feet south of the MMT site along Dry Dock Avenue and is currently inactive."

2.2 Public Benefits

The Proposed Project will provide substantial community and economic development benefits to the City of Boston and the South Boston neighborhood. The Proposed Project represents a major step in the implementation of a joint Massport, City of Boston economic development plan that will enhance the Port of Boston and provide well-paying jobs for Boston residents in the seafood industry and supporting ventures. The Proposed Project will also:

- Provide opportunity for up to 150 new permanent maritime industrial jobs;
- Relocate one or more of the seafood businesses requiring expansion space to grow;
- Explore the feasibility of alternative modes of transportation, such as mass transit, ride sharing services, and bicycle use;
- Improving / creating vehicular and pedestrian infrastructure to allow for additional circulation in and around the MMT; and
- Permanently provide an additional 346 parking spaces, and temporarily create many new jobs in the construction and building trade industries.

2.3 Regulatory Controls and Permits

2.3.1 *Exemption from Local Zoning*

As a property leased from Massport, an agency created by the Massachusetts Legislature, the Project Site is exempt from municipal zoning regulations for action reasonably related to Massport's essential governmental function. Regardless, the Proposed Project's uses which include marine-dependent industrial uses, as well as uses accessory to such uses are permitted by right and the dimensions complies with the City of Boston's South Boston Maritime Economy Reserve ("MER") Subdistrict of the Dorchester Bay/Neponset River Waterfront Zoning District (See "Boston Zoning Map 4B").

2.3.2 *Existing Boston Zoning Code*

For informational purposes, **Table 2-1** that follows illustrates the dimensional and off-street parking requirements that would be required under the South Boston MER Subdistrict, regulations for the MER 2-55 subdistrict.

Table 2-1. South Boston MER Subdistrict - Dimensional and Off-Street Parking Requirements

Dimensional Element	South Boston MER Subdistrict	Proposed Project ¹
Minimum Lot Size	None	6.5 acres (283,140 sq. ft.)
Minimum Lot Width	None	256.57 ft.
Max. Floor Area Ratio	2.0	0.8
Max. Building Height	55 ft.	50 ft.
Minimum Usable Open Space	None	0.88 acres (38,250 sq. ft.)
Minimum Front Yard Setback	None	10 ft.
Minimum Side Yard	None	N/A *
Minimum Rear Yard	12 ft.	N/A *
Waterfront Yard Area	35 ft.	Not Waterfront
Required Off-Street Parking (1)	1 per 1,600 sq. ft. of gross floor area	1 per 471 sq. ft.
Minimum Number of Loading Bays	(2)	50

* Project has no side or rear yards and has only frontage on all sides.

1. Required off-street parking and loading spaces shall be determined through the Large Project Review process. Moreover, for any proposed project subject to Large Project Review and for which a Transportation Access Plan is required, the BPDA may determine that so-called "shared parking" arrangements, in which parking spaces may be counted for different uses whose peak parking use periods are not coincident, will adequately meet parking demand associated with such proposed project, in which event the number of parking spaces otherwise required shall be correspondingly reduced. (Boston Zoning Code sec. 42A-10.1(e).)
2. For any proposed project with a gross floor area of 10,000 square feet or more, the applicant must include in its Project Impact Report, prepared for Large Project Review, an analysis of the loading requirements of the proposed project, and of the impacts of projected loading activities, together with a description of any off-street loading facilities required to meet those requirements and to mitigate, to the extent economically practicable, projected impacts, and the BPDA shall determine the adequacy of such proposed loading facilities in accordance with Large Project Review. (Id. sec. 42A-11.)

2.3.3 Preliminary List of Permits or Other Approvals Which May be Sought

Agency Name	Permit or Action*
State Agencies	
MA Exec. Office of Environmental Affairs	Environmental Notification Form ("ENF")
MA Historical Commission	PNF or ENF (Due to Long-term State Lease)
MA State Building Authority	Building Permits
Massport	Design Review
Massport	Signage Review
Massport	Fire Safety Review
Local Agencies	
Boston Planning and Development Agency	Voluntary Article 80 Review and execution of related agreements
Boston Conservation Commission	Notice of Intent (due to the presence of coastal bank buffer zone and 100-year floodplain on the Project Site)
Boston Air Pollution Control Commission (APCC)	APCC requires a South Boston Parking Freeze Permit for any non-residential parking spaces. APCC has previously issued a master parking freeze permit for all of the RLFMP, including MMT Parcel 6
Boston Public Safety Commission Committee on Licenses	Garage License; Flammable Fuels
Boston Transportation Department	Voluntary Transportation Access Plan Agreement; Voluntary Construction Management Plan
Boston Department of Public Works Public Improvements Commission	Possible Sidewalk Repair Plan; Curb-Cut Permit; Street/Sidewalk Occupancy Permit; Permit for Street Opening
Boston Fire Department	Approval of Fire Safety Equipment
Boston Inspectional Services Department	Electrical Permit
Boston Water and Sewer Commission	Approval for Sewer and Water and Connections; Construction Site Dewatering; and Storm Drainage

*This is a preliminary list based on project information currently available. It is possible that not all of these permits or actions will be required, or that additional permits may be needed.

2.4 Public Review Process and Agency Coordination

In support of the required Article 80 Large Project Review process, the Proponent has conducted, and will continue to conduct meetings and discussions with the elected representatives and officials from the area, and area residents.

To date, this process has included presentations to South Boston's elected officials and their representatives.

The Proponent has also discussed the Proposed Project with representatives of the BPDA prior to filing this Project Notification Form in order to identify issues/concerns as well as design requirements related to the Project.

The ENF with MEPA is scheduled to be filed during the BPDA public comment period, and the Boston Civic Design Commission is expected to consider the proposed schematic design during that same review period and the formal public review and scoping meetings will also occur during that period.

The Proponent anticipates discussion with the State Building Inspector about the Project, as the State Building Authority will be the authority on this Project in the issuing of building permits. The Proponent will also submit a General Site Plan Review Application to the Boston Water & Sewer Commission when the design of the sanitary sewer lift station is finalized.

2.5 Development Impact Project (“DIP”) Status

As an industrial use, the Proposed Project does not fall within the definition of a Development Impact Project under the Boston Zoning Code.

3.0 DESIGN AND SUSTAINABILITY COMPONENT

3.1 Design Objectives

Parcel 6's design objectives include:

- To recognize, respect and reinforce the existing scale and character of the RLFMP;
- To make full use of the capacity of the land;
- To provide a limited, but valuable interface between the seafood industry and the public on Sub-Parcel 6C; and
- To reinforce the essential character of Fid Kennedy Avenue as a gateway to the mixed-use Seaport related uses.

The urban design drawings and LEED v4 for BD+C Checklists are included at the end of this section.

3.2 Project Site

The proposed site includes approximately 6.5 acres of the 29.5 acre MMT site and is bounded to the north by Shore Road (adjacent to the Boston Harbor), to the south by Fid Kennedy Avenue, to the west by Tide Street Extension (adjacent to Parcel 5), and to the east by a road to be constructed, with the working attribution for design purposes as Bollard Way (adjacent to Parcels 7 & 8). Parcel 5 is expected to be soon under construction for similar maritime industrial and seafood uses

3.3 Site Planning, Programming & Building Design

General goals for Parcel 6 planning include the following:

- Seafood industry use and support of local seafood industry cluster;
- Increased seafood industrial land use intensity;
- Support of larger seafood employers;
- Sub-parceling for seafood company ownership potential;
- Support facilities, including parking, food service and union hall; and
- Truck loading and circulation.

The maritime (seafood) industrial use of Parcel 6 and the MMT is an essentially non-urban use; it is port and airport-related, but only dependent on the City of Boston for infrastructure and as a centralized point of distribution. Employees are unable to make use of the public transportation system because of the 4:00-5:00 AM start time, creating unusual parking pressure. Supply and distribution for larger seafood companies is both national and international.

Small land area for this type of development in the Port has made entry for the seafood industry difficult. Parcel 6 planning seeks to maximize that limited opportunity.

3.4 Boston Sword & Tuna – Sub-Parcel 6A

Boston Sword & Tuna (BST), a rapidly-growing company located at 8 Seafood Way, has planned a new freestanding facility that will allow continued growth of its business. They currently occupy 30,000 sf, with approximately 100 employees. The existing 30,000 sf³ is inefficient, because it is within a building specifically planned for smaller businesses, as BST itself once was. The new, efficiently-planned facility will allow Boston Sword & Tuna to double its production, and significantly expand sales and employment.

3.4.1 Program

BST will occupy a total of 48,070 sf including a 12,000 sf mezzanine. Essential uses include the following:

1. Production	23,600 sf
2. Storage & high bay freezer	8,550 sf
3. Shipping /receiving	4,400 sf
4. Administration and Sales	8,620 sf
5. Employee Support	2,900 sf
6. Sub-Parcel 6A Site	Eleven (11) loading bays, with 57 parking spaces ⁴

The BST building design is compact and functionally efficient, with a well-organized internal flow of goods, starting and ending at the shipping/receiving. This supports operational, energy and cost efficiency.

3.4.2 Building Design

The external design of the building is based on a highly energy-efficient envelope, incorporating both insulated metal panel (SIPS), and glass curtain wall. The curtain wall is unusual in this building type but reflects the increased administrative/sales and support facilities required for the modern seafood plant.

3.5 Sub-Parcel 6B – User to be Determined

Sub-Parcel 6B is planned for seafood industry use, similar to Sub-parcel 6A. The building footprint shown on the Development Concept Plan is intended to represent the potential capacity of the sub-parcel. Please see **Figure 1-3** in the Executive Summary.

³ The space to be vacated by BST is already committed for another seafood processor.

⁴ Onsite parking assumes availability of additional parking nearby.

Additional use components, which will be desirable for this sub-parcel, are commercial freezer/cooler facilities. Currently, the local seafood industry needs to have their own internal facilities, or travel to suburban locations for this purpose. Several seafood industry companies have expressed interest in this site. A single building is shown on the Plan, but in consideration of the size of the sub-parcel, this may further sub-divided into two separate buildings, depending on user commitments.

3.6 Sub-Parcel 6C – Parking and Support

Sub-Parcel 6C is planned for additional maritime industrial parking, and other support services. The parking will serve both Parcel 6 and the rest of the MMT. Ancillary food services and a new Union Hall for the International Longshoremen's Association (ILA) will also be incorporated.

3.6.1 Program

- | | |
|----------------------------------|------------|
| 1. Garage parking | 280 spaces |
| 2. Surface parking | 66 spaces |
| 3. Over-the-counter seafood shop | 5,000 s.f. |
| 4. ILA Union Hall | 2,500 s.f. |

Affordability of the parking is a primary requirement for this ancillary parking. For efficient use of the land, structured parking is proposed. However, between surface parking and ground-level parking within the garage, 116 (34%) of the parking spaces are ground-supported, and 230 spaces are structure-supported. This is an important reduction in per-space parking cost.

The over-the-counter seafood shop will provide early morning and lunchtime food services for the maritime industrial workers and other visitors at affordable pricing. Seafood, both fresh and in pre-packaged meals, will also be available. Boston Sword & Tuna is the proposed operator.

The International Longshoremen's Association Union Hall will contain four small offices and a large meeting space. The Hall operates as the daily employment center for the Longshoremen. Longshoremen go to the Hall first to receive their working assignments for the day. A substantial portion of the Longshoremen, working at the Black Falcon Cruiseport, will walk to work from the Union Hall. The Longshoremen are intended to occupy through the life of the sub-ground lease (2070), and account for sixty (60) of the proposed parking spaces.

3.6.2 Building Design

The mixed-use parking structure is proposed as a pre-cast concrete building. Dimensions incorporate a back-side parking ramp, allowing the street-facing portions of the building to have horizontal floor levels. Fid Kennedy Avenue and the Tide Street Extension elevations will include metal and/or fabric panels to break up the surface and introduce color.

3.7 Landscape Design

Planting species which provide four season interest, tolerance of coastal winds, salt air and drought are planned for this development. New plantings along Fid Kennedy Avenue and Tide Street Extension will provide attractive frontage and a sense of entrance. Robust tree planting in front of the garage along Fid Kennedy Avenue will offer a vegetative buffer. Plantings in parking islands will provide pervious area and assist in visually breaking up the paving area.

Outdoor tables, seating and specialty paving are planned for the public over-the counter seafood shop entrance. Bike racks will be provided throughout the development to encourage alternative modes of transportation to the development. Stormwater runoff will be collected in vegetated rain gardens and infiltrated. Properly-shielded (i.e., complying with night-sky protection standards) site lighting with low energy requirements will be introduced to illuminate loading areas, entrances and parking areas.

3.8 Sustainable Design/Energy Conservation

The proposed project involves the development of three (3) buildings.

- Sub-Parcel 6A - Boston Sword and Tuna Processing Facility to be developed with one structure to be occupied by Boston Sword & Tuna. It will have its own purpose-built fresh seafood processing and distribution plant of approximately 48,000 gsf of floor area. With a footprint of 36,000 sf on 77,000 sf of land, the structure will include a first floor with a mezzanine and a freezer bay. Overall building height is expected to be no higher than 45 feet.
- Sub-Parcel 6B - A seafood processing facility, tenant(s) to be determined, that is ~62,000 gsf. The structure will include a first floor with a mezzanine and a freezer bay.
- Sub-Parcel 6C - An accessory mixed-use parking structure will contain an over-the counter seafood shop as well as the new International Longshoremen's Association Union Hall on its ground floor. The introduction of locally provisioned retail seafood at this location will provide a valuable interface between the seafood industry and the public. The garage will include approximately 280 parking spaces, which are in addition to 66 surface spaces at the site.

To meet the City of Boston sustainability guidelines, the project is demonstrating compliance with the LEED BD&C v4 criteria. The project's Sub-Parcels 6A and 6B are currently tracking 46 points in the YES column with 12 in the study column. Further study over the coming weeks and months will determine final credit achievement. We have outlined in the narrative below, how the project intends to achieve the prerequisites and credits for the LEED BD&C v4 certification. Given the use of this facility we are critically reviewing our ability to meet the LEED prerequisites, especially the Minimum Energy Performance. We will likely need to separate the seafood processing facility from the office support space to comply with this prerequisite. We will provide updates as we work through the design with the mechanical and electrical engineers (Please see **Figure 3-12** at the end of this section). In addition, Parksmart Scorecard has been completed as **Figure 3-13** for Sub-Parcel 6C, the mixed-use garage, also at the end of this section.

3.8.1 *Introduction*

Sustainability informs every design decision. Enduring and efficient buildings conserve embodied energy and preserve natural resources. The project embraces the opportunity to positively influence the industrial environment. Its urban location takes advantage of existing infrastructure.

The Proponent and the Project design team are committed to an integrated design approach and are using the LEED Building Design and Construction v4 rating system and intend to meet certification as presented above. This rating will meet or exceed Boston's Green Building standard. The LEED rating system tracks the sustainable features of the project by achieving points in following categories: Location & Transportation; Sustainable Sites; Water Efficiency; Energy and Atmosphere; Materials and Resources; Indoor Environmental Quality; and Innovation and Design Process.

The proponent has also completed a Parksmart Scorecard for Sub-Parcel 6C. We have met the required points for the following Parksmart Certification Measures; Management, Program, Technology and Structure Design, and Innovation. We are currently tracking 127 points which puts us at a Parksmart Bronze level.

3.8.2 *Location and Transportation*

The Location and Transportation credit category encourages development on previously developed land, minimizing a building's impact on ecosystems and waterways, regionally appropriate landscaping, smart transportation choices.

The site also qualifies for sensitive land protection as a previously developed site.

The site is located on a site whose surrounding existing density within a ¼-mile [400-meter] radius of the project boundary and provided dozens of amenities within 0.5 mile of the project site.

The seafood processing companies will provide access to quality transit as the project is located within 0.25 mile of the following busses SL2 and #4 and within 0.5 miles of 2 Silver line stops. The project will provide long term and short term bicycle spaces and showers and the mixed-use garage is evaluating Green Vehicle credits.

3.8.3 *Sustainable Sites*

The development of sustainable sites is at the core of sustainable design, stormwater runoff management, and reduction of erosion, light pollution, heat island effect, and pollution related to construction and site maintenance are critical to lessening the impact of development.

The project will create and implement an erosion and sedimentation control plan for all construction activities associated with the project. The plan will conform to the erosion and sedimentation requirements of the 2012 U.S. Environmental Protection Agency (EPA) Construction General Permit (CGP) or local equivalent, whichever is more stringent.

The project will complete and document a site survey or assessment that will demonstrate the relationships between the site features and topics, Topography, Hydrology, Climate, Vegetation, Soils, Human use. The project will evaluate compliance with light pollution reduction from the building and the site lighting. The project will also meet the requirements of Light Pollution Reduction.

3.8.4 Water Efficiency

Buildings are major users of our potable water supply and conservation of water preserves a natural resource while reducing the amount of energy and chemicals used for sewage treatment. The goal of the Water Efficiency credit category is to encourage smarter use of water, inside and out. Water reduction is typically achieved through more efficient appliances, fixtures and fittings inside and water-wise landscaping outside. To satisfy the requirements of the Water Use Reduction Prerequisite and credit, the project will incorporate water conservation strategies that include low flow plumbing fixtures for water closets and faucets. The landscape will be designed so it will eliminate the need for potable water for irrigation by selecting plant material that is native and adaptive.

The project is targeting a minimum 50 % indoor water use reduction from the baseline in the office use. All newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labeling will have the Water Sense label.

The project will evaluate installing permanent water meters that measure the total potable water use for the building and associated grounds in addition to water meters for two or more of the following water subsystems, as applicable to the project: Indoor domestic plumbing fixtures and fittings, domestic hot water, or boiler.

3.8.5 Energy & Atmosphere

According to the U.S. Department of Energy, buildings use 39% of the energy and 74% of the electricity produced each year in the United States. The Energy and Atmosphere credit category encourages a wide variety of energy strategies: commissioning; energy use monitoring; efficient design and construction; efficient appliances, systems and lighting; the use of renewable and clean sources of energy, generated on-site or off-site; and other innovative practices.

The team is completing extensive energy analysis to try to meet the prerequisite. Our mechanical engineer and outside energy consultants have advised us to separate the uses of office and

processing. If we take this approach our office areas will be able to meet the requirements of the perquisite. We will follow up with more information.

Fundamental Commissioning, Enhanced Commissioning, and Envelope Commissioning will be pursued for the project.

The project will evaluate installing new energy meters, or submeters that can be aggregated to provide building-level data representing total building energy consumption (electricity, natural gas, chilled water, steam, fuel oil, propane, biomass, etc.). Prereq 4- Fundamental refrigerant management. The project will not use chlorofluorocarbon (CFC)-based refrigerants in new heating, ventilating, air-conditioning, and refrigeration (HVAC&R) systems.

The project will evaluate renewable energy production if it is not possible, the building will be solar ready.

The project will select refrigerants that are used in heating, ventilating, air-conditioning, and refrigeration (HVAC&R) equipment to minimize or eliminate the emission of compounds that contribute to ozone depletion and climate change. Project will perform the calculations once systems are selected.

The project will also explore infrastructure for demand response management for this facility along with a contract for 100% of the project's energy from green power, carbon offsets, or renewable energy certificates (RECs).

3.8.6 Materials & Resources

During both construction and operations, buildings generate tremendous waste and use many materials and resources. This credit category encourages the selection of sustainable materials, including those that are harvested and manufactured locally, contain high-recycled content, and are rapidly renewable. It also promotes the reduction of waste through building and material reuse, construction waste management, and ongoing recycling programs.

The project will provide dedicated areas accessible to waste haulers and building occupants for the collection and storage of recyclable materials for the entire building. Collection and storage areas may be separate locations. Recyclable materials will include mixed paper, corrugated cardboard, glass, plastics, and metals. The project will also take appropriate measures for the safe collection, storage, and disposal of two of the following: batteries, mercury-containing lamps, and electronic waste.

The project will develop and implement a construction and demolition waste management plan that will identify at least five materials (both structural and nonstructural) targeted for diversion. Approximate a percentage of the overall project waste that these materials represent. The project will divert at least 75% of the total construction and demolition material; diverted

materials must include at least four material streams. The project will also consider completing a [life-cycle assessment](#).

Careful material selection will be performed for the project. Where possible the project hopes to integrate products that have Environmental Product Declarations (EPD), Sourcing of raw materials and corporate sustainability reporting, and Material Ingredients disclosures.

3.8.7 Indoor Environmental Quality

The U.S. Environmental Protection Agency estimates that Americans spend about 90% of their day indoors, where the air quality can be significantly worse than outside. The Indoor Environmental Quality credit category promotes strategies that can improve indoor air through low emitting materials selection and increased ventilation. It also promotes access to natural daylight and views.

The project will meet the minimum requirements of ASHRAE Standard 62.1–2010, Sections 4–7, Ventilation for Acceptable Indoor Air Quality (with errata), or a local equivalent, whichever is more stringent.

The project will provide enhanced indoor air quality strategies. The project will provide entryway systems design systems, interior cross-contamination prevention and filtration. The project will target Low emitting materials for all materials within the building interior is defined as everything within the waterproofing membrane. This includes requirements for product manufacturing volatile organic compound (VOC) emissions in the indoor air and the VOC content of materials.

The project will develop and implement an indoor air quality (IAQ) management plan for the construction and preoccupancy phases of the building, meeting or exceeding all applicable recommended control measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 2nd edition, 2007, ANSI/SMACNA 008–2008, Chapter 3. The project will protect absorptive materials stored on-site and installed from moisture damage.

The project prohibits the use of all tobacco products inside the building and within 25 feet (8 meters) of the building entrance during construction. Daylight will be evaluated for energy efficiency opportunities and benefits for the occupants.

3.8.8 Innovation and Design Process

The Innovation in Design and Innovation in Operations credit categories provide additional points for projects that use new and innovative technologies, achieve performance well beyond what is required by LEED credits, or utilize green building strategies that are not specifically addressed elsewhere in LEED. This credit category also rewards projects for including a LEED Accredited

Professional on the team to ensure a holistic, integrated approach to design, construction, operations and maintenance.

Five credits are being pursued and could include the following:

- Innovation in Design: Green Housekeeping (yes)
- Innovation in Design: Integrated Pest Mgmt. (yes)
- Innovation in Design: Education (yes)
- Innovation in Design: Walkable Site (yes)
- Innovation in Design: Water Rec (yes)

Regional Priority:

- Indoor Water use (yes)
- Regional Priority: Renewable Energy (maybe)

3.9 Design Drawings and LEED Checklists

Design drawings and renderings depicting the Boston Sword & Tuna and Proposed Mixed –Use Garage Projects, the LEED v4 for BD+C Checklist for Sub-Parcel 6A and 6B, and a Parksmart Scorecard for Sub-Parcel 6C Mixed-Use Garage follow:

Figure 3-1. Boston Sword & Tuna: Perspective Towards Main Entrance

Figure 3-2. Façade Detail from Boston Sword & Tuna

Figure 3-3. Boston Sword & Tuna Schematic Floor Plan

Figure 3-4. Boston Sword & Tuna: North Elevation (Harbor View) and West Elevation

Figure 3-5. Boston Sword & Tuna: South Elevation and East Elevation

Figure 3-6. Mixed-Use Garage: Grade Level Floor Plan

Figure 3-7. Mixed-Use Garage: Second Level Floor Plan

Figure 3-8. Mixed-Use Garage: Third Level Floor Plan

Figure 3-9. Mixed-Use Garage: Roof Level Floor Plan

Figure 3-10. Mixed-Use Garage: Perspective Sketch Option 1

Figure 3-11. Mixed-Use Garage: Perspective Sketch Option 2

Figure 3-12. LEED v4 for BD+C Checklist for Sub-Parcels 6A & 6B

Figure 3-13. Parksmart Scorecard for Sub-Parcel 6C - Mixed-Use Garage



Figure 3-1. Boston Sword & Tuna: Perspective Towards Main Entrance

1. Surface mounted lighting
2. Kynar finished metal cornice
3. Insulated metal panels
4. Glass and aluminum curtainwall
5. Metal accent panels
6. Suspended overhangs



Facade detail from Boston Sword

Figure 3-2. Façade Detail from Boston Sword & Tuna

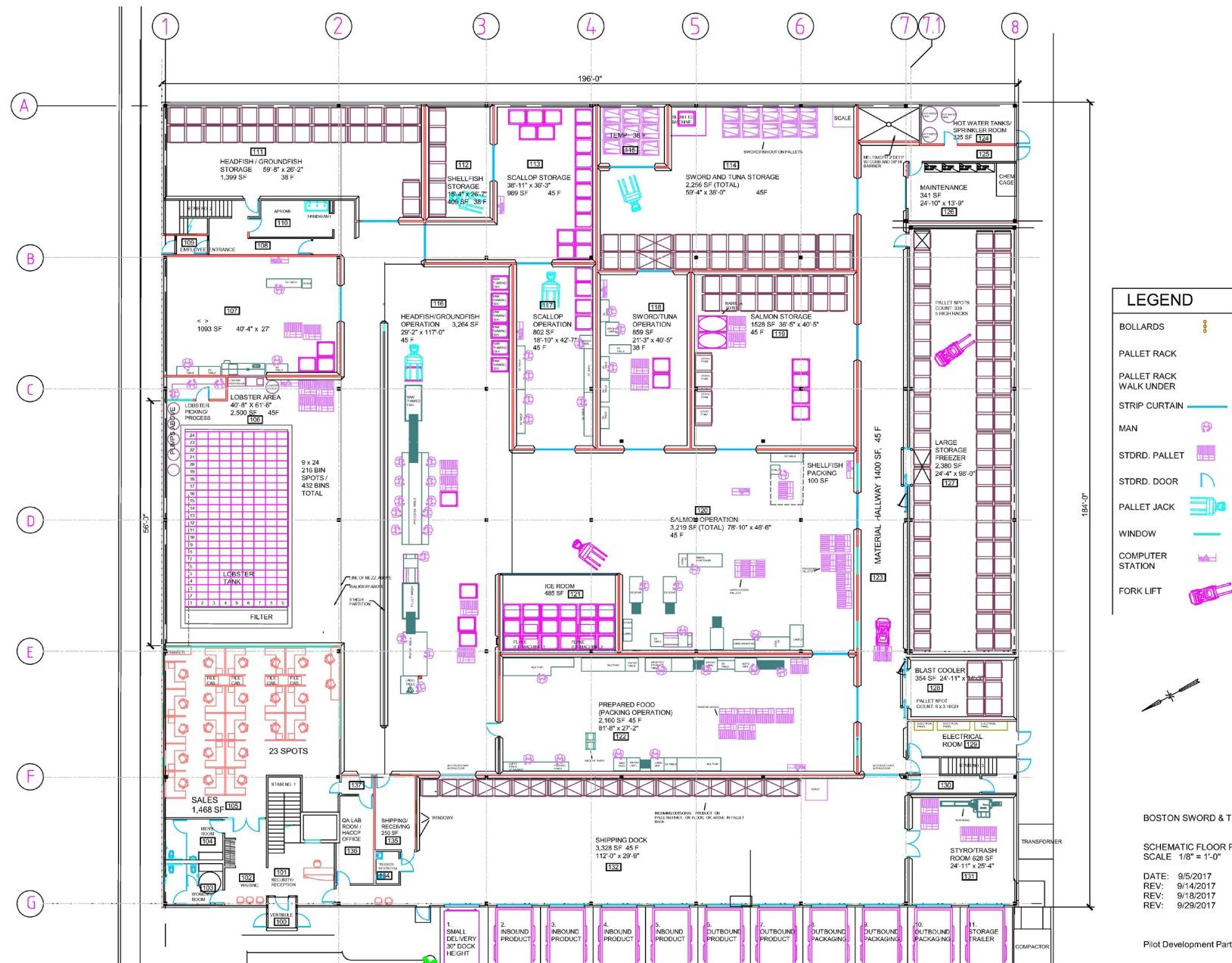


Figure 3-3. Boston Sword & Tuna. Schematic Floor Plan



North Elevation (Harbor View)



West Elevation

Figure 3-4. Boston Sword & Tuna: North Elevation (Harbor View) and West Elevation

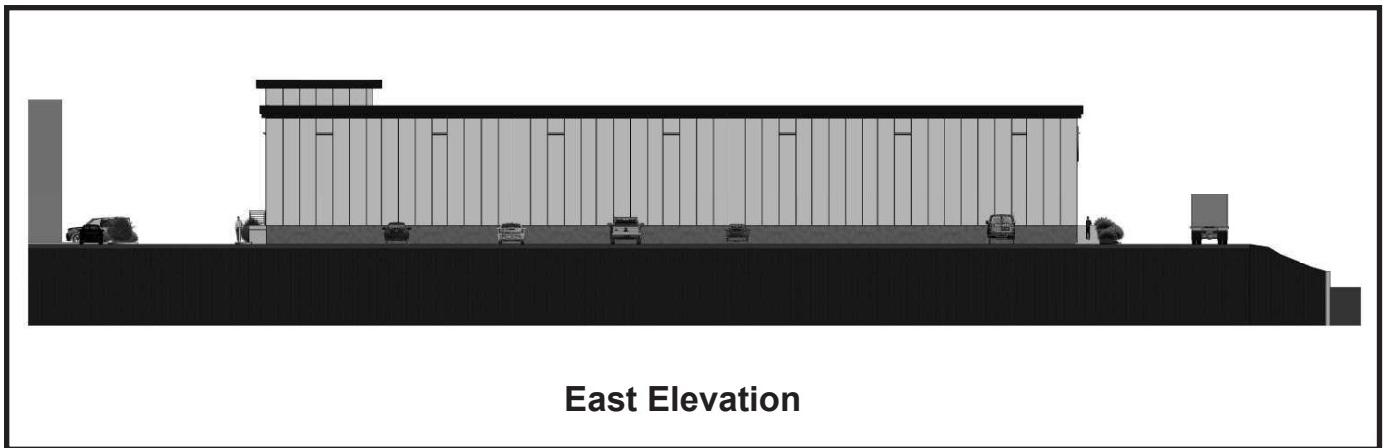
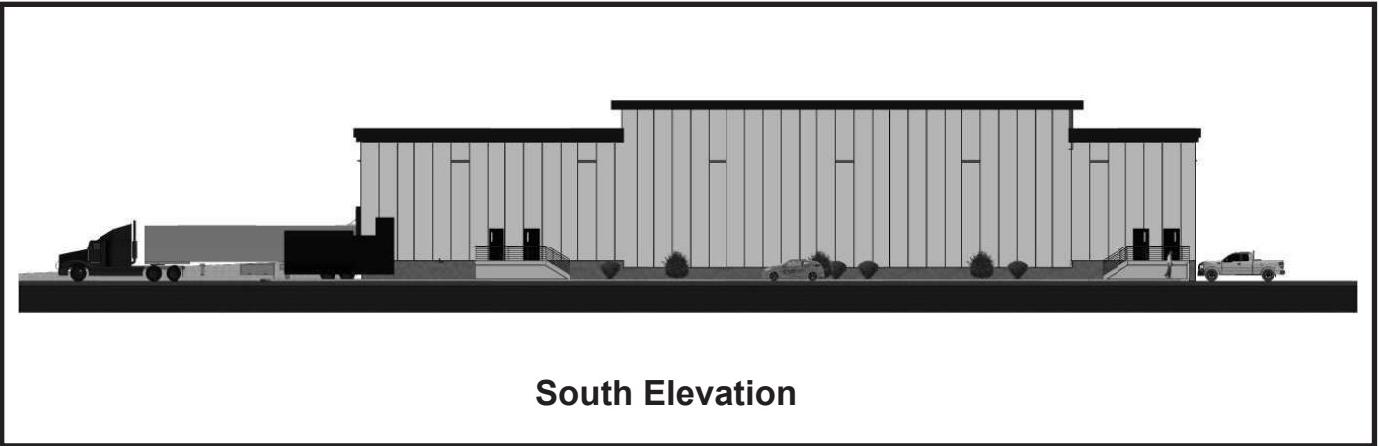


Figure 3-5. Boston Sword & Tuna: South Elevation and East Elevation

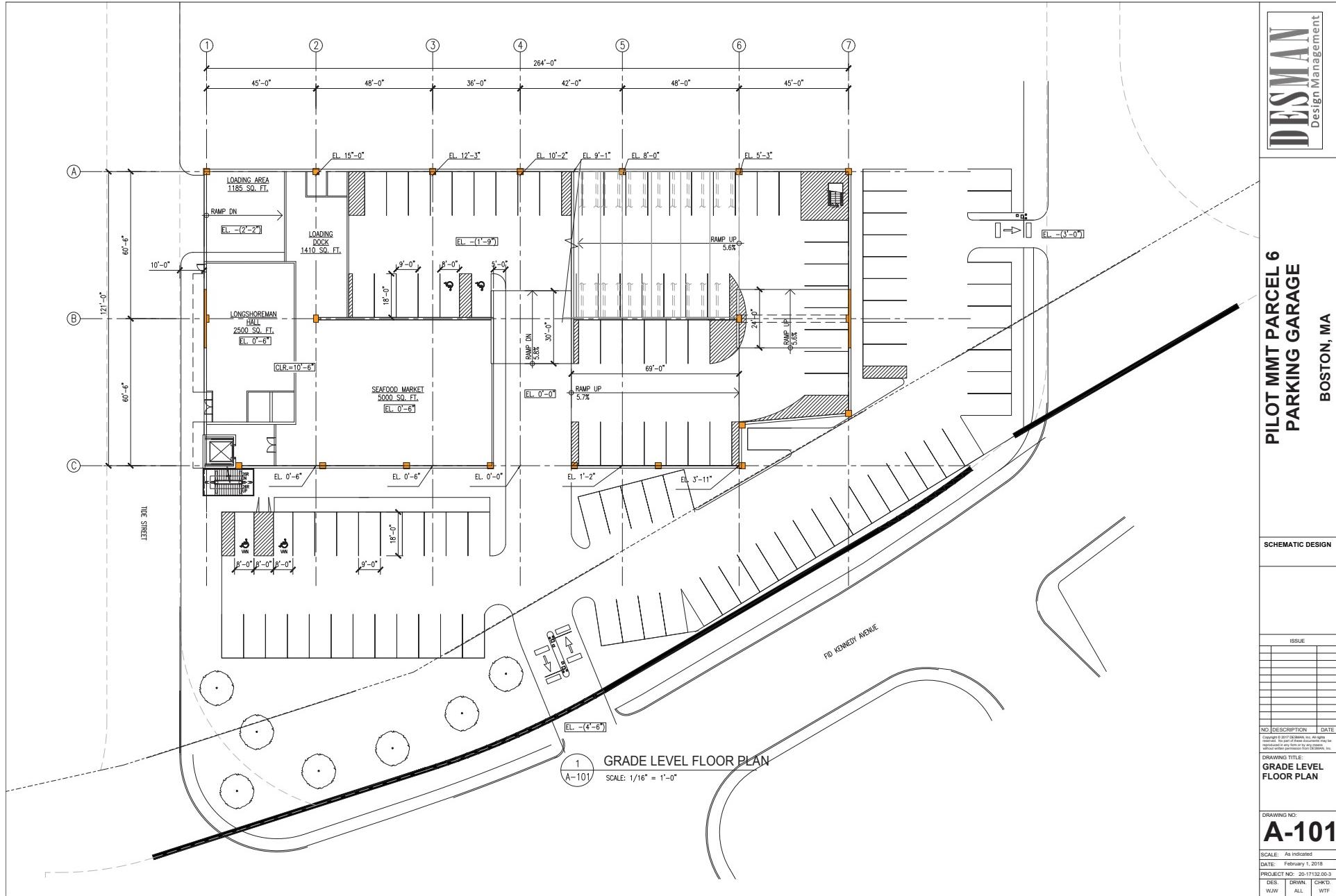
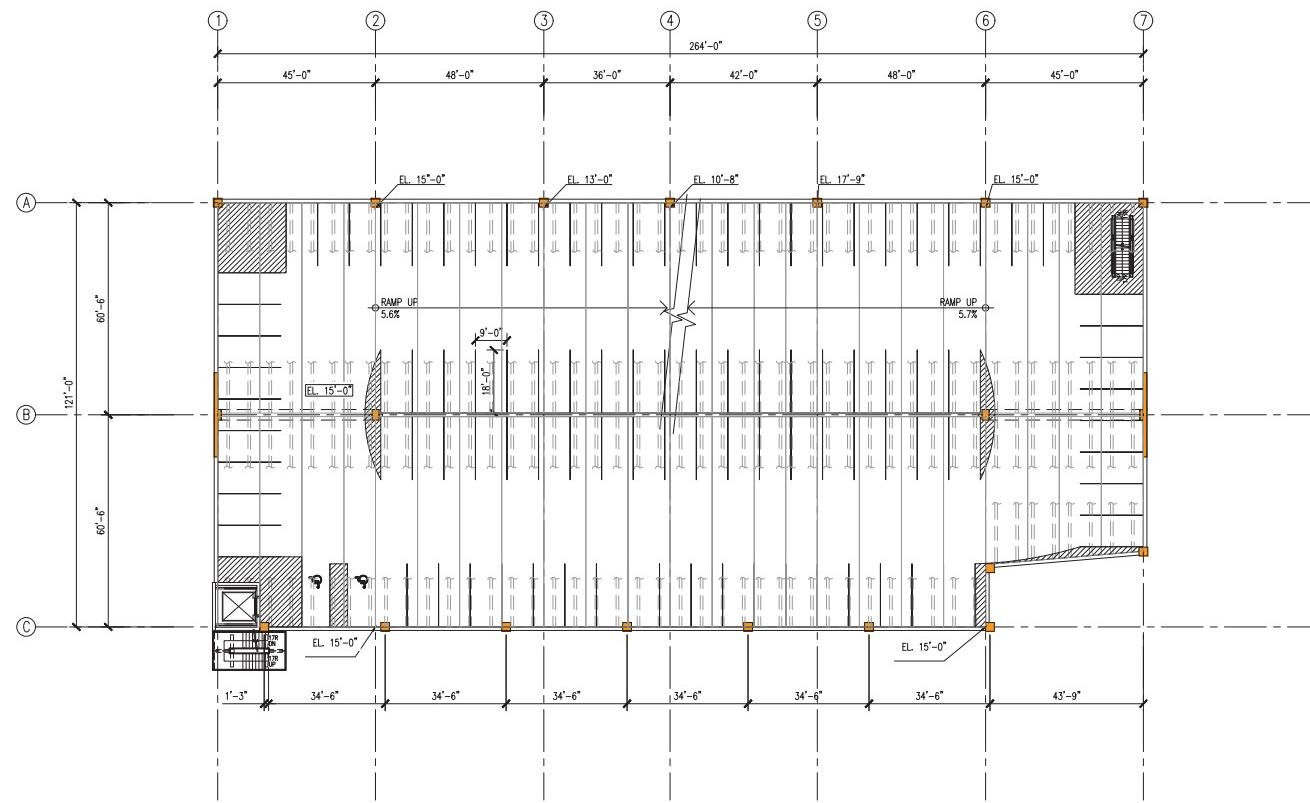


Figure 3-6. Mixed-Use Garage: Grade Level Floor Plan

**PILOT MMT PARCEL 6
PARKING GARAGE**

BOSTON, MA

SCHEMATIC DESIGN		
ISSUE		
NO.	DESCRIPTION	DATE
	Copyright © 2017 DESMAN, Inc. All rights reserved. This drawing may not be reproduced or copied without permission from DESMAN, Inc.	
DRAWING TITLE:	SECOND LEVEL FLOOR PLAN	
DRAWING NO:	A-102	
SCALE:	As indicated	
DATE:	February 1, 2018	
PROJECT NO:	20-17152-00-3	
DES:	J.W.H.	
DRWN:	ALL	
CHKD:	WTF	



SECOND LEVEL FLOOR PLAN
A-102

SCALE: 1/16" = 1'-0"

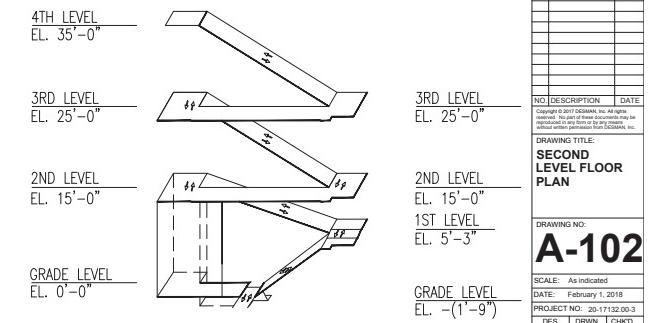
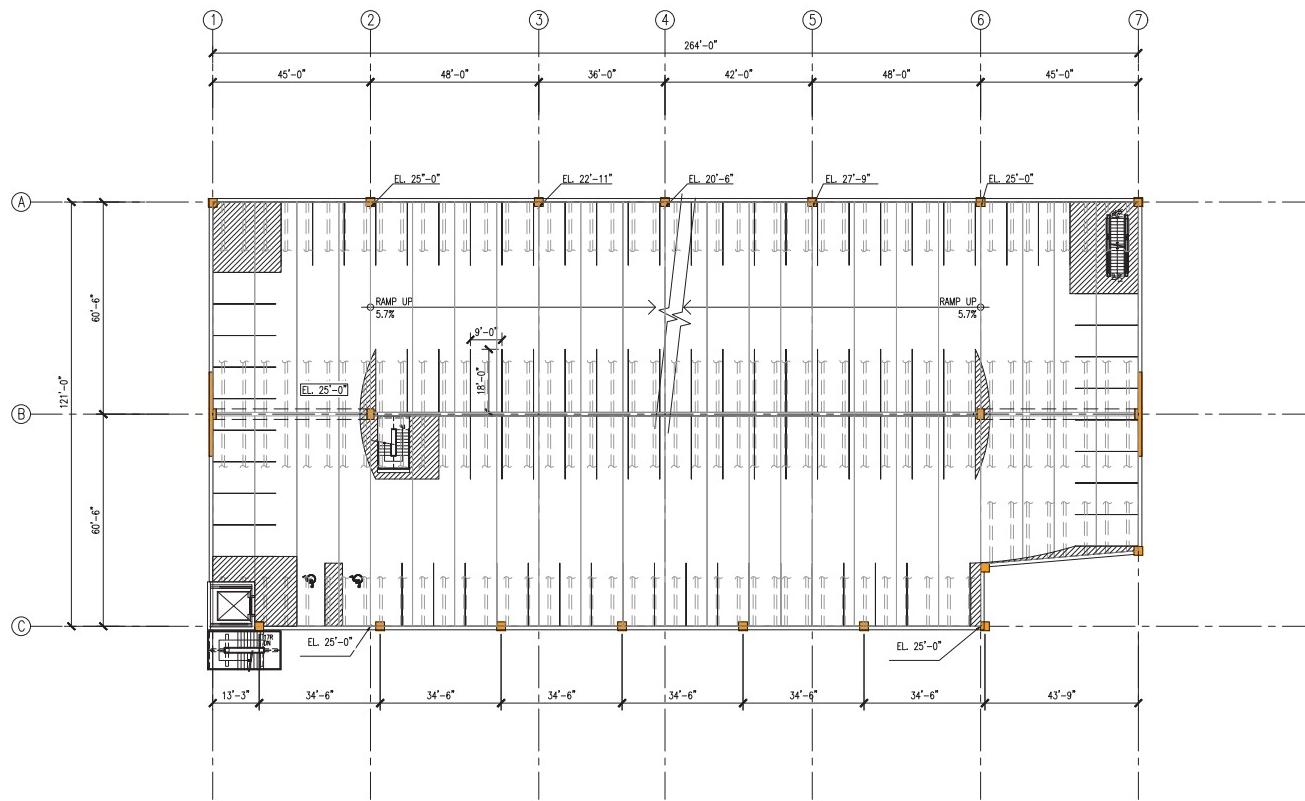


Figure 3-7. Mixed-Use Garage: Second Level Floor Plan

**PILOT MMT PARCEL 6
PARKING GARAGE**

BOSTON, MA

SCHEMATIC DESIGN		
ISSUE		
NO. DESCRIPTION DATE Copyright © 2017 DESMAN, Inc. All rights reserved. This drawing may not be reproduced without permission from DESMAN, Inc.		
DRAWING TITLE: THIRD LEVEL FLOOR PLAN		
DRAWING NO.: A-103		
SCALE: As indicated		
DATE: February 1, 2018		
PROJECT NO: 20-17152-00-3		
DES. DRWN. CHKD. W.W. ALL WTF		



1 THIRD LEVEL FLOOR PLAN
A-103
SCALE: 1/16" = 1'-0"

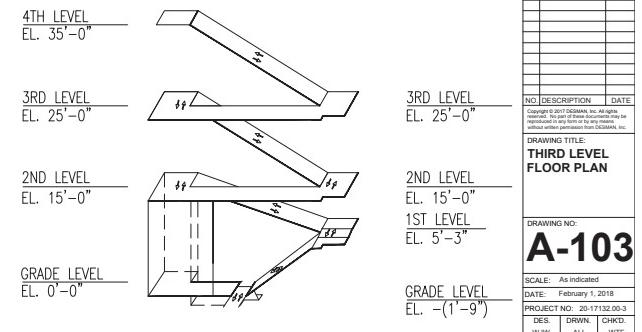


Figure 3-8. Mixed-Use Garage: Third Level Floor Plan

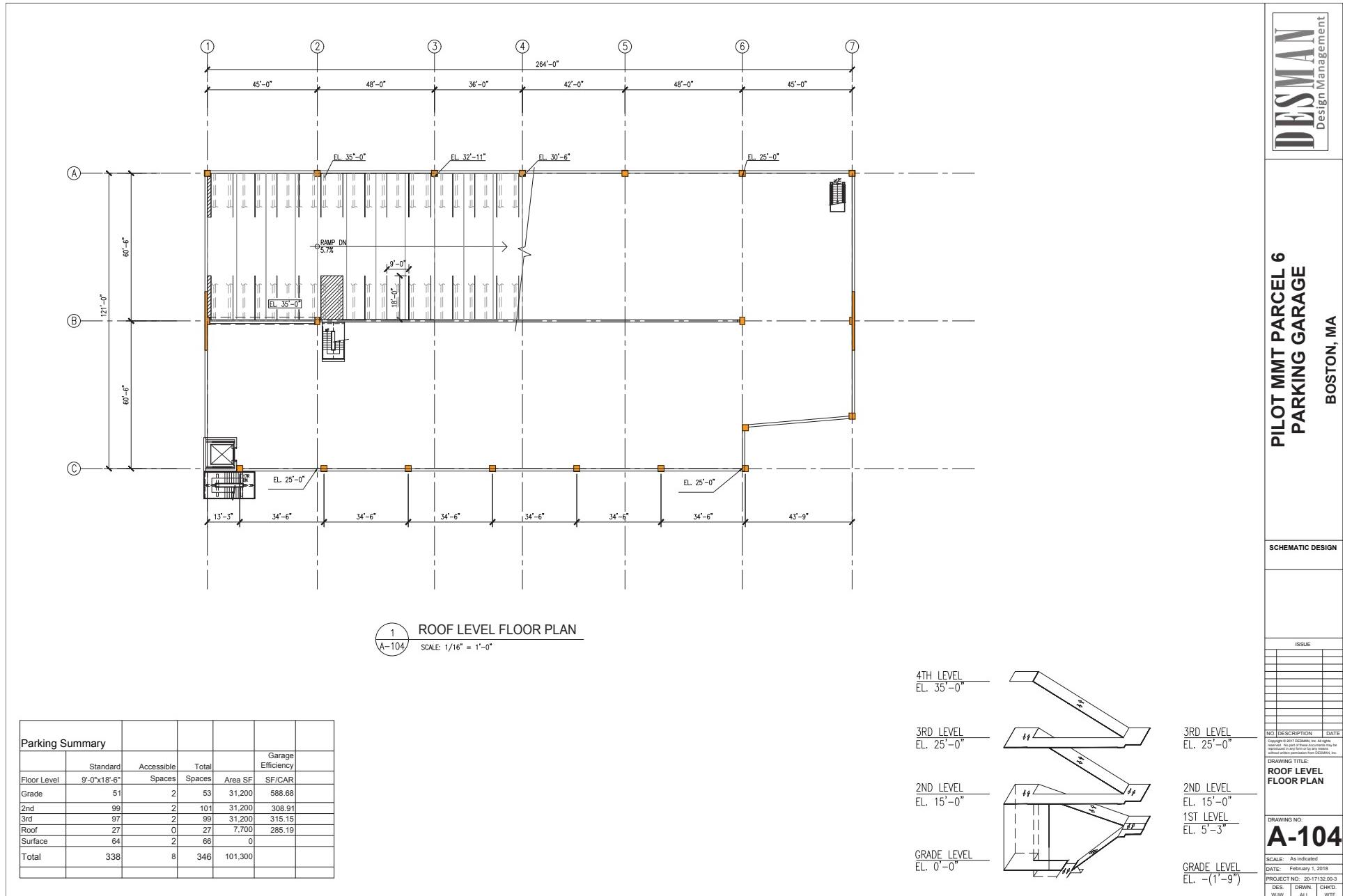


Figure 3-9. Mixed-Use Garage: Roof Level Floor Plan

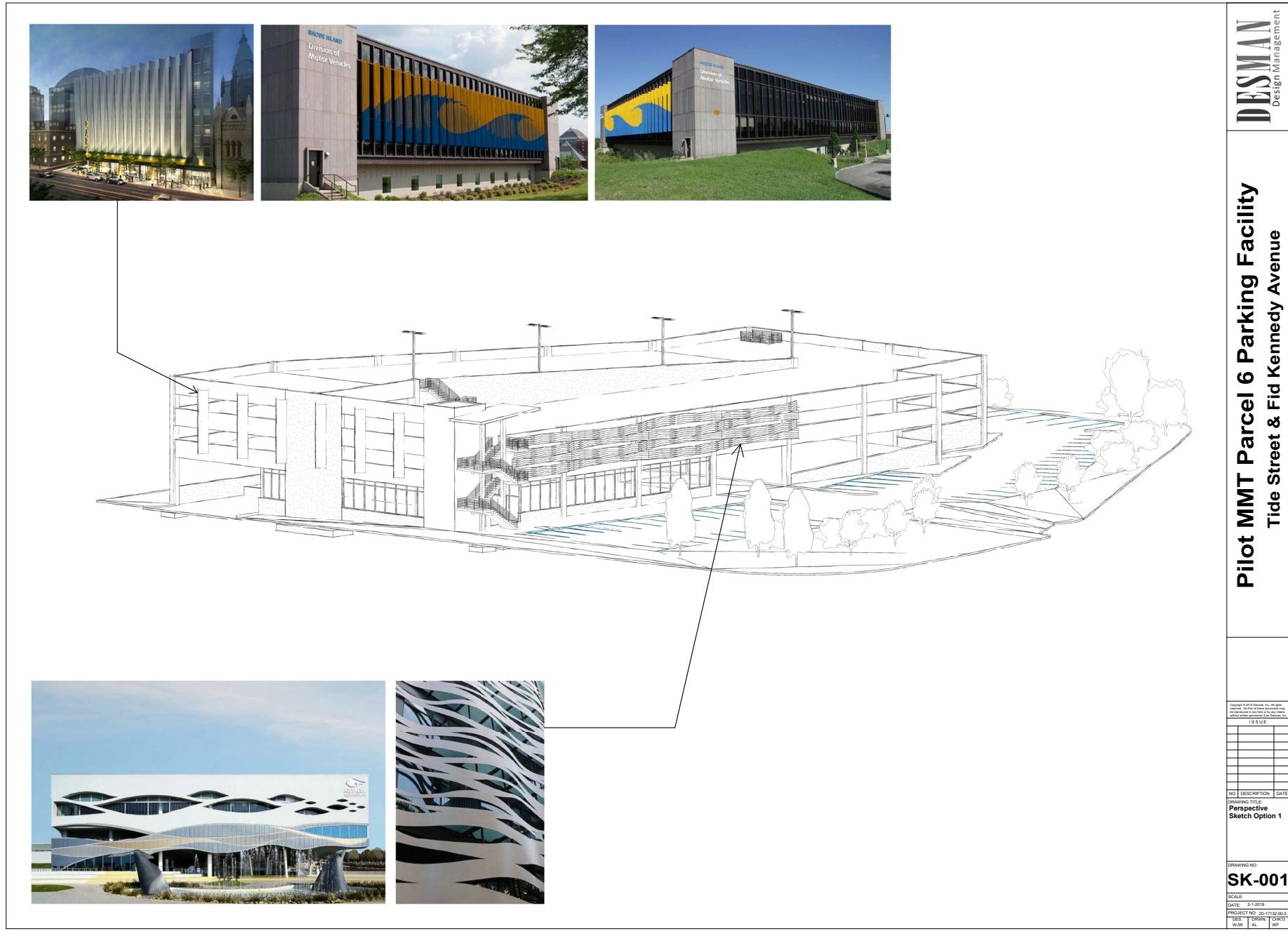


Figure 3-10. Mixed-Use Garage: Perspective Sketch Option 1

Pilot MMT Parcel 6 Parking Facility
Tide Street & Fid Kennedy Avenue

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ISSUE		
NO.	DESCRIPTION	DATE
DRAWING TITLE: Perspective Sketch Option 2		
DRAWING NO. SK-002		
SCALE:		
DATE:	2-1-2018	
PROJECT:	20171008-2	
DES.	DRAWN	CIRCLED
W.W.	AL	WTF

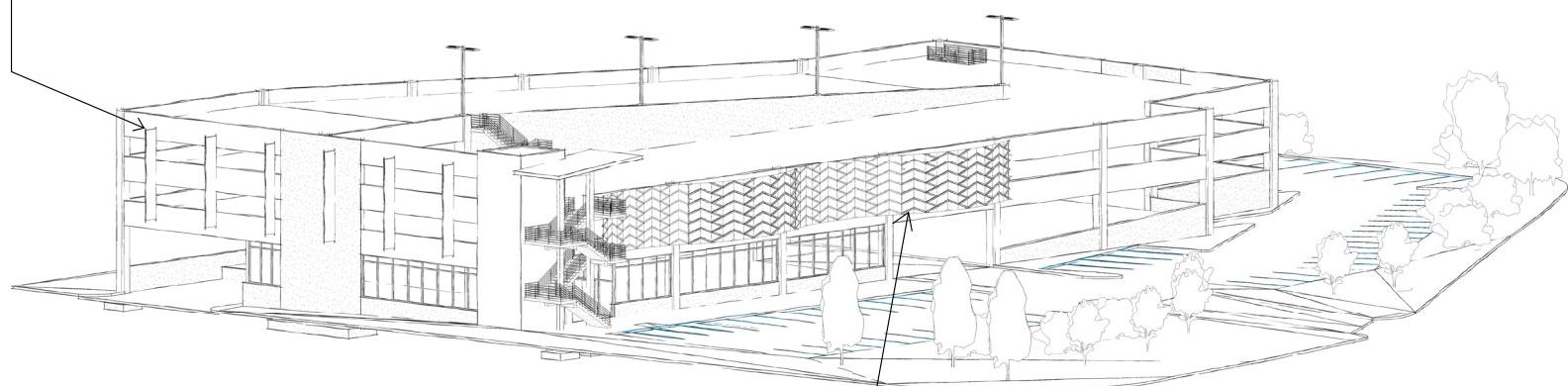


Figure 3-11. Mixed-Use Garage: Perspective Sketch Option 2

Figure 3-12



LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

Y ? N

1 Credit Integrative Process

1

Project Name: Parcel 6A & 6B
Date: 6-Feb-18

Location and Transportation			16
Credit	LEED for Neighborhood Development Location		16
1	Sensitive Land Protection		1
	High Priority Site		2
5	Surrounding Density and Diverse Uses		5
5	Access to Quality Transit		5
1	Bicycle Facilities		1
	Reduced Parking Footprint		1
1	Green Vehicles		1

Sustainable Sites			10
Y	Prereq	Construction Activity Pollution Prevention	Required
1	Credit	Site Assessment	1
	2	Site Development - Protect or Restore Habitat	2
	1	Open Space	1
	3	Rainwater Management	3
1	1	Heat Island Reduction	2
1	Credit	Light Pollution Reduction	1

Water Efficiency			11
Y	Prereq	Outdoor Water Use Reduction	Required
Y	Prereq	Indoor Water Use Reduction	Required
Y	Prereq	Building-Level Water Metering	Required
2	Credit	Outdoor Water Use Reduction	2
6	Credit	Indoor Water Use Reduction	6
	2	Cooling Tower Water Use	2
1	Credit	Water Metering	1

Energy and Atmosphere			33
Y	Prereq	Fundamental Commissioning and Verification	Required
Y	Prereq	Minimum Energy Performance	Required
Y	Prereq	Building-Level Energy Metering	Required
Y	Prereq	Fundamental Refrigerant Management	Required
6	Credit	Enhanced Commissioning	6
2	16	Optimize Energy Performance	18
	1	Advanced Energy Metering	1
1	1	Demand Response	2
1	2	Renewable Energy Production	3
1	Credit	Enhanced Refrigerant Management	1
2	Credit	Green Power and Carbon Offsets	2

Materials and Resources			13	
2	0	11		
Y		Prereq	Storage and Collection of Recyclables	Required
Y		Prereq	Construction and Demolition Waste Management Planning	Required
	5	Credit	Building Life-Cycle Impact Reduction	5
	2	Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
	2	Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
	2	Credit	Building Product Disclosure and Optimization - Material Ingredients	2
	2	Credit	Construction and Demolition Waste Management	2

Indoor Environmental Quality			16		
3	5	8			
Y		Prereq	Minimum Indoor Air Quality Performance	Required	
Y		Prereq	Environmental Tobacco Smoke Control	Required	
1	1	1	Credit	Enhanced Indoor Air Quality Strategies	2
	1	2	Credit	Low-Emitting Materials	3
1		1	Credit	Construction Indoor Air Quality Management Plan	1
1	1	1	Credit	Indoor Air Quality Assessment	2
	1	1	Credit	Thermal Comfort	1
	1	1	Credit	Interior Lighting	2
	3	Credit	Credit	Daylight	3
	1	Credit	Credit	Quality Views	1
	1	Credit	Credit	Acoustic Performance	1

Innovation			6
6	0	0	
5	Credit	Innovation - Green Housekeeping, Education, IPM, Walkable Site, Water Rec	5
1	Credit	LEED Accredited Professional	1

Regional Priority			4	
1	1	1		
1	Credit	Regional Priority: Building Indoor Waster Use Reduction	1	
	1	Credit	Regional Priority: High Priority Site	1
	1	Credit	Regional Priority: Optimize Energy	1
	1	Credit	Regional Priority: Renewable	1

46 12 52 TOTALS Possible Points: 110

Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110

Parksmart Scorecard

Project Name:	Parking Garage at MMT Parcel 6C			
Project Registration #:				
Add Points Attempted for Each Option in White Columns Below				
Parksmart Certification Measure	Options	Max Points Available	Points Attempted	Points Awarded
MANAGEMENT				
A1 - Parking Pricing	Parking Pricing	6	6	
A2 - Shared Parking	Shared Parking Program	2	2	
	Oversubscription of Parking Permits	2		
	Shared Parking Analysis	6	6	
A3 - TMA/TMO	Transportation Management Association / Organization	4		
A4 - Recycling Program	Active Recycling Program	2	2	
	Percentage of Recycling: At least 25% but less than 50%	1	1	
	Percentage of Recycling: 50% or more	2		
A5 - Sustainable Purchasing Program	Organized Sustainable Purchasing Program	2		
	Purchasing of Product Groups	1		
A6 - Proactive Operational Maintenance	Proactive Operational Maintenance	6	6	
A7 - Cleaning Procedures - Occupied Spaces	Cleaning Products & Hand Cleaners	2		
A8 - Cleaning Procedures - Parking Decks	Spot Cleaning / Oil Degreasing	1	1	
	Power Washing: Water is Disposed	2	2	
	Power Washing: Water is Recycled	3		
	Sweeping: Electric or Propane	1		
	Sweeping: Power Scrubber	1		
A9 - Building Systems Commissioning	USGBC LEED 2009 or v4 Enhanced Commissioning credit	8		
	USGBC LEED 2009 Fundamental Commissioning of Building Energy Systems prerequisite or v4 Fundamental Commissioning and Verification prerequisite	6	6	
	ASHRAE Guideline 0-2005 and ASHRAE Guideline 1.1-2007	6		
	California Commissioning Guide for New or Existing Buildings	6		
	ASHRAE Level II Audit	4		
	Comparable Established Certified Commissioning Authority (CxA) Standards	4		
A10 - Construction Waste Management	85% or more recycled or reused	6		
	At least 50% but less than 85% recycled or reused	4		
	At least 20% but less than 50% recycled or reused	2	2	
A11 - Regional Materials	At least 75% sourced regionally	6	6	
	At least 50% but less than 75% sourced regionally	3		
A12 - Regional Labor	At least 60% regional	3	3	
	At least 35% but less than 60% regional	1		
	Rideshare for laborers	1		

Figure 3-13. Parksmart Scorecard: Mixed-Use Parking Garage

Parksmart Certification Measure	Options	Max Points Available	Points Attempted	Points Awarded
A13 - Reused, Repurposed or Recycled Materials	At least 80% reused, repurposed or recycled	6		
	At least 50% but less than 80% reused, repurposed or recycled	4		
	At least 20% but less than 50% reused, repurposed or recycled	2		
A14 - Third Party Sustainability Certification	Platinum LEED 2009 or v4	12		
	Gold LEED 2009 or v4	10		
	Silver LEED 2009 or v4	8		
	Certified LEED 2009 or v4	6		
	Certified any level LEED v2.2	4		
	Four Green Globes	12		
	Three Green Globes	10		
	Two Green Globes	8		
	One Green Globes	6		
	Energy Conservation or Environmental Sustainability Program	2		
A15 - Credentialed Management	LEED Professional Credential (AP or AP with specialty)	4	4	
	Green Globes Assessor (GGA)	4		
	LEED Green Associate	3		
	Green Globes Professional (GGP)	3		
	Certified Administrator of Public Parking (CAPP)	2		
	Certified Parking Professional (CPP)	2		
	Facilities Management Administrator (FMA) or Real Property Administrator (RPA)	1		
	Certified Facility Manager (CFM)	1		
	Parksmart Advisor (formerly Green Garage Assessor)	1		
	Alternative Program	4		
A16 - Life Cycle Assessment	LCA performed and savings implemented on project totaling over \$2 million	8		
	LCA performed and savings implemented on project totaling over \$1 million	6		
	LCA performed and savings implemented on project totaling over \$500,000	4	4	
	LCA performed and savings implemented on project totaling over \$100,000	2		
(Must be at least 20) Subtotal		90	51	0

Figure 3-13. Parksmart Scorecard: Mixed-Use Parking Garage (Continued)

Parksmart Certification Measure	Options	Max Points Available	Points Attempted	Points Awarded
PROGRAMS				
B1 - Placemaking	Placemaking	6	6	
B2 - Access to Mass Transit	Access to Mass Transit	4	4	
B3 - Wayfinding Systems - External	Dynamic Signage	1		
	Wayfinding System	2	2	
	Reservation System	1		
B4 - Wayfinding Systems - Internal	Parking Guidance via Single Space Detection	4		
	Parking Guidance via Electronic Level Occupancy Detection	3	3	
	Parking Guidance via Automatic Variable Signage	2		
	Parking Guidance via Manual Count and Static Signage	1		
B5 - Traffic Flow Plan	At least four traffic flow strategies	4		
	Average idle time of 5 seconds or less	4		
	At least three traffic flow strategies	3		
	At least two traffic flow strategies	2	2	
B6 - Carshare Program	Carshare Hub	5		
	Alternative Fuel Vehicles In Carshare Hub	1		
B7 - Rideshare Program	Rideshare: Reserved Spaces	4		
	Rideshare: Incentives	2		
B8 - Low-emitting and Fuel Efficient Vehicles	Preferred parking for low-emitting and fuel efficient vehicles	2		
	Discounted rates for low-emitting and fuel efficient vehicles	2	2	
B9 - Alternative Fuel Vehicles	AFV: Reserved Parking Spaces	3		
	AFV: Rate Discount	3		
B10 - Alternative Fuel Fleet Vehicles	At least 50% of fleet vehicles are powered by alternative fuels	4		
	At least 25% but less than 50% of fleet vehicles are powered by alternative fuels	2		
B11 - Bicycle Parking	Meets Tier One and Tier Two criteria	6	6	
	Meets Tier One criteria	4		
B12 - Bicycle Sharing/Rental	Contains bicycle sharing or bicycle rental hub	6		
	Promotes bicycle sharing or bicycle rental hub	4		
B13 - Marketing/Educational Program	Marketing/Educational Program	4	4	
(Must be at least 20) Subtotal		64	29	0

Figure 3-13. Parksmart Scorecard: Mixed-Use Parking Garage (Continued)

Parksmart Certification Measure	Options	Max Points Available	Points Attempted	Points Awarded
TECHNOLOGY AND STRUCTURE DESIGN				
C1 - Idle Reduction Payment Systems	Idle Reduction Payment Systems	4	4	
C2 - Fire Suppression Systems	Halon Free Fire Suppression Systems	2		
C3 - No/Low VOC Coatings, Paints, Sealants	No/Low VOC Coatings, Paints, Sealants	2		
C4 - Tire Inflation Stations	Tire Inflation Stations	2		
C5 - EV Charging Stations	Two or more DC Fast Chargers	5		
	One DC Fast Charger	4		
	Two or more AC Level II EV Chargers, equaling at least 1% of all parking spaces	5	5	
	Two or more AC Level II EV Chargers, equaling at least 0.5% but less than 1% of all parking spaces	4		
	At least one AC Level II EV Charger, equaling less than 0.5% of all parking spaces	2		
	Level I equipped spaces equaling at least 0.5% of all parking spaces	1		
	No additional payment is required to charge vehicles	1		
C6 - HVAC Systems - Occupied Spaces	Energy Efficient System	2	2	
	CO Sensors	1	1	
	Programmable Thermostats	2	2	
	Environmentally Safer Coolants	1		
C7 - Ventilation Systems - Parking Decks	Demand Controlled Ventilation	3		
	Variable Air Flow System	2		
	Schedule or Occupancy Controls	1		
	Calibration and Maintenance	1		
	Design for Natural Ventilation	6	6	
C8 - Lighting Controls	At least 75% of lighting fixtures controlled by occupancy sensors	6		
	At least 50% of lighting fixtures controlled by occupancy sensors	4		
	At least 50% of lighting fixtures controlled by advanced programmable system	3		
	At least 50% of lighting fixtures controlled by simple timer	2		
	At least 25% of lighting fixtures on lighting controls	1		
	At least 60% of (exterior) lighting fixtures controlled by photocells or occupancy sensors	2	2	
	At least 60% of (exterior) lighting fixtures controlled by programmable timer	1		
C9 - Energy Efficient Lighting System	Lighting Power Density (LPD)	7	5	
	Average Rated Lamp Life	1		

Figure 3-13. Parksmart Scorecard: Mixed-Use Parking Garage (Continued)

Parksmart Certification Measure	Options	Max Points Available	Points Attempted	Points Awarded
C10 - Stormwater Management	Implement an Erosion and Sedimentation Control Plan	2	2	
	Meet or exceed Municipal and Local Watershed Water Quality Control Targets	2	2	
	Retain minimum of 50% of total average rainfall	2		
C11 - Rainwater Harvesting	Rainwater Harvesting	4		
C12 - Greywater Reuse	Greywater Reuse	2		
C13 - Indoor Water Efficiency	Efficient Fixtures	2	2	
C14 - Water Efficient Landscaping	Water Efficient Landscaping	2	2	
C15 - Roofing Systems	Green Roof	6		
	Blue Roof	4		
	Carport or Canopy	3		
	High SRI Roofing	2		
	Solar Panels	2		
C16 - Renewable Energy Generation	At least 75% of energy is on-site renewable energy	12		
	At least 50% and less than 75% of energy is on-site renewable energy	10		
	At least 25% and less than 50% of energy is on-site renewable energy	8		
	At least 5% and less than 25% of energy is on-site renewable energy	6		
	At least 75% of energy is offset by RECs	4		
	At least 50% and less than 75% of energy is offset by RECs	3		
	At least 25% and less than 50% of energy is offset by RECs	2		
	At least 5% and less than 25% of energy is offset by RECs	1		
C17 - Design for Durability	Design for Durability	6	6	
C18 - Energy Resiliency - Storage	Grid Interactive Energy Storage	2		
	Grid and On-site Renewable Interactive Energy Storage	4		
(Must be at least 20) Subtotal		88	41	0
INNOVATION				
D1 - Innovative Approach	Innovative Approach	6	6	
TOTALS				
Management Subtotal		90	51	0
Programs Subtotal		64	29	0
Technology and Structure Design Subtotal		88	41	0
Innovation		6	6	0
Total		248	127	0

Figure 3-13. Parksmart Scorecard: Mixed-Use Parking Garage (Continued)

4.0 ENVIRONMENTAL PROTECTION COMPONENT

4.1 Tidelands/Chapter 91

The Project Proponent will confirm with MassDEP Waterways that the Proposed Project comprises water-dependent industrial and accessory uses, in compliance with the RLFMP Master Chapter 91 License. Moreover, pursuant to 310 CMR 9.03(3)(a), *Activities of the Massachusetts Port Authority*, Massport may undertake any project consisting entirely of water-dependent-industrial uses or accessory uses thereto on previously filled or flowed tidelands within the Port of Boston, without written authorization in the form of a license or permit from the MassDEP Waterways.

4.2 Stormwater Management and Water Quality

Two outfalls are available for surface water drainage for Parcel 6. One, a new drainage outfall for which drainage stubs are being provided to the subject parcel on Tide Street, and the second, an existing drainage system in Fid Kennedy Avenue which ultimately terminates in tidal discharge. It has already been pre-determined that Boston Water and Sewer Commission (BWSC) desires that 40% of the surface water flows discharge to Tide Street, and 60% discharge toward Fid Kennedy Avenue. Consequently, the discharge of roof runoff and pavement areas will be separated accordingly.

While it is understood that the entire proposed Parcel 6 development area discharges to Land Subject to Coastal Storm Flowage and that in its existing condition Parcel 6 is largely paved, Boston Water and Sewer requires that 1 inch of initial runoff be infiltrated. The purpose of this infiltration is not so much flow mitigation as it is pollution attenuation, based on the assumption that a significant amount of the runoff pollutants, nitrogen specifically, occur in the first inch of runoff. Consequently, infiltration will be designed meeting those infiltration parameters before discharge. Roof runoff will be collected and discharged directly to the respective drainage systems as it is presumed clean.

All drainage systems and connections will be reviewed and approved by the Boston Water and Sewer Commission as part of the site plan approval process.

4.3 Solid and Hazardous Waste Materials

4.3.1 Solid Waste

The Proponent will ensure that waste removal and disposal during construction and operation will be in conformance with the City and DEP's Regulations for Solid Waste.

During operations, a significant portion of the waste will be recycled. The project will also include ambitious goals for construction waste management in order to meet the requirements for the LEED™ rating system. This strategy will divert demolition and construction waste by reusing and recycling materials.

In order to meet the requirements for the Boston Environmental Department and the LEED™ rating system, the Project will include space dedicated to the storage and collection of recyclables within the trash room. The recycling program will meet or exceed the City's guidelines, and provide areas for waste paper and newspaper, metal, glass, and plastics (21 through 27, commingled).

4.3.2 Hazardous Waste and Materials

Based on a subsurface investigation conducted on the site between November 2006 and April 2007 by ATC for Massport for the entire MMT property which totals 32.4 acres, the Phase I Environmental Site Assessment completed by TRC for the Proponent in January, 2018, indicated that reportable conditions were detected in soil (beryllium, lead and zinc) and groundwater (nickel, naphthalene and phenanthrene) and reported to MassDEP on April 17, 2007 at which time RTN 3-26768 was assigned.

At the time ATC prepared a Class B-2 Response Action Outcome (RAO) Statement, dated November 25, 2008 on behalf of Massport, the RAO was supported by an Activity and Use Limitation (AUL) on the MMT property, including the Proposed Site on November 6, 2008. Based on the Site being subject to the AUL on the entire MMT property, this condition is considered a Controlled Recognizable Environmental Condition (CREC). The Phase I Environmental Site Assessment report completed by TRC is available upon request.

4.4 Geotechnical Analysis

The following summarizes the preliminary geotechnical evaluation and recommendations by Geosciences Testing & Research, Inc. ("GTR") for the Proposed Project. Their study included investigating the subsurface conditions within the footprint of the proposed Boston Sword & Tuna Building at Sub-Parcel 6A, and analyzing the data obtained to determine the seismic site class and lateral resistance, and to estimate the allowable bearing capacity/settlements for the proposed deep foundations.

The seafood-processing structure proposed at Sub-Parcel 6A is a two-story, steel-framed building with an approximate building footprint of 36,000 square feet. The first-floor building slab will be raised from two (2) to four (4) feet above the current grade. Typical column loads of around 300 tons were used for the preliminary design.

Based on the provided existing borings logs from the South Boston Annex, the site was dredged to an approximate elevation of -38 to -40 feet for the former U.S. Navy pier at this location. The Navy pier was subsequently demolished, and the area was filled in to an approximate elevation of +16 feet Boston City Base ("BCB"). During construction of the Central Artery/Tunnel project, portions of Parcel 6A were used to store excavated material backfill and other construction materials. After completion of the Central Artery/Tunnel project, the area was paved, and has since been used, sporadically, as a parking lot.

GTR oversaw a subsurface exploration program; which consisted of four (4) borings. The subsurface investigation program was completed between January 3 and 16, 2018 by Soil Exploration Corp. of Leominster, MA. A Mobile B-57 truck-mounted drill rig was used to perform the borings. A drive and wash rotary drilling method advanced the borings to the top of subsurface rock.

According to the borings, the subsurface conditions at the site primarily consist of 40 to 50 feet of uncontrolled granular and/or cohesive fill, overlying a relatively thin layer of clay/glacial till, over Argillite bedrock. Multiple granite block obstructions and cobbles were encountered within the fill during the course of boring. The top of bedrock ranges from elevation approximately -39 to -50 ft BCB (55 feet to 66 feet below ground surface).

The primary geotechnical engineering concern at the site relates to foundation performance with respect to the uncontrolled, thick, variable (cohesive/granular) fill layer. Relatively large total and differential settlements and/or bearing capacity failure may occur if shallow foundations are used. Therefore, deep foundations appear to be necessary for supporting the proposed structure loads and transferring them to the dense till layer and/or bedrock layer below the fill/clay.

Due to the obstructions that were encountered within the fill, driven piles are not recommended. Instead, drilled micro piles (DMPs) are the recommended deep-foundation option as they can be drilled through the granite block obstructions. Other deep foundations types were considered but not evaluated, as they were deemed either not technically appropriate for the subsurface conditions or not economically feasible.

Based on 300-ton column loads, axial compression loads of 100 tons and 150 tons per DMP were evaluated for the proposed Boston Sword & Tuna foundation support. Bond zones of 10 to 15 feet into the Argillite Bedrock will be required for the aforementioned axial compression loads using permanent 7-inch or 9-5/8-inch diameter casing, respectively. This results in estimated DMPs lengths from approximately 65 feet to 81 feet. The desired slab-on-grade type construction may result in estimated settlements of less than 1-inch.

4.5 Construction Impact

With respect to impacts likely to result from the Proposed Project construction and the steps that will be taken to avoid or minimize environmental and transportation-related impacts, the Proponent will employ a construction manager who will be responsible for developing a construction phasing and staging plan and for coordinating construction activities with all appropriate regulatory agencies. The Project's geotechnical consultant will provide consulting services associated with foundation design recommendations, prepare geotechnical specifications, and review the construction contractor's proposed procedures.

The following section describes impacts likely to result from the Proposed Project construction and the steps that will be taken to avoid or minimize environmental and transportation-related impacts. The Proponent will employ a construction manager who will be responsible for developing a construction phasing and staging plan and for coordinating construction activities with all appropriate regulatory

agencies. The Project's geotechnical consultant will provide consulting services associated with foundation design recommendations, prepare geotechnical specifications, and review the construction contractor's proposed procedures.

4.5.1 Construction Management Plan

The Proponent will comply with applicable state and local regulations governing construction of the Project. The Proponent will require that the general contractor comply with the Construction Management Plan, ("CMP") developed in consultation with and approved by the Boston Transportation Department ("BTD"), prior to the commencement of construction. The construction manager will be bound by the CMP, which will establish the guidelines for the duration of the Project and will include specific mitigation measures and staging plans to minimize impacts on abutters.

Proper pre-construction planning with the neighborhood will be essential to the successful construction of this Project. Construction methodologies that will ensure safety will be employed, signage will include construction manager contact information with emergency contact numbers.

The Proponent will also coordinate construction with other ongoing projects in the Seaport.

4.5.2 Proposed Construction Program

Construction Activity Schedule

Sub-Parcel 6A construction is expected to last approximately 15 months, beginning in the second quarter of 2018 and reaching completion, with occupancy in the third quarter of 2019. The City of Boston Noise and Work Ordinances will dictate the normal work hours, which will be from 7:00 AM to 6:00 PM, Monday through Friday.

Perimeter Protection/Public Safety

The CMP will describe any necessary sidewalk closures, pedestrian re-routings, and barrier placements and/or fencing deemed necessary to ensure safety around the Site perimeter. If possible, the sidewalk will remain open to pedestrian traffic during the construction period. Barricades and secure fencing will be used to isolate construction areas from pedestrian traffic. In addition, sidewalk areas and walkways near construction activities will be well marked and lighted to ensure pedestrian safety.

Proper signage will be placed at every corner of the Project as well as those areas that may be confusing to pedestrians and automobile traffic.

The Proponent will continue to coordinate with all pertinent regulatory agencies and representatives of the surrounding neighborhoods to ensure they are informed of any changes in construction activities.

4.5.3 Construction Traffic Impacts

Construction Vehicle Routes

Estimated truck deliveries and routes are identified in at the end of this section. Specific truck routes will be established with BTD, and coordinated with MPA, through the CMP. These established truck routes, which will include use of the South Boston Haul Road, will prohibit travel on any residential side streets. Construction contracts will include clauses restricting truck travel to BTD requirements. Maps showing approved truck routes will be provided to all suppliers, contractors, and subcontractors. It is anticipated that all deliveries will be via Fid Kennedy Avenue direct to the site, not passing through any residential areas.

Construction Worker Parking

The number of workers required for construction of the Project will vary during the construction period. However, it is anticipated that all construction workers will arrive and depart prior to peak traffic periods.

Limited parking in designated areas of the Project Site and lay-down area(s) will be allowed. Parking will be discouraged in the immediate neighborhood. Further, public transit use will be encouraged with the Proponent and construction manager working to ensure the construction workers are informed of the public transportation options serving the area. Terms and conditions related to worker parking will be written into each subcontractor's contract. The contractor will provide a weekly orientation with all new personnel to ensure enforcement of this policy.

Pedestrian Traffic

The Site abuts sidewalks on Fid Kennedy Avenue. Pedestrian traffic may be temporarily impacted along Fid Kennedy Avenue. The Construction Manager will minimize the impact the construction of the proposed building will have and the adjacent sidewalks. The contractor will implement a plan that will clearly denote all traffic patterns. Safety measures such as jersey barriers, fencing, and signage will be used to direct pedestrian traffic around the construction site and to secure the work area.

4.5.4 Construction Environmental Impacts and Mitigation

Construction Air Quality

Construction activities may generate fugitive dust, which will result in a localized increase of airborne particle levels. Fugitive dust emission from construction activities will depend on such factors as the properties of the emitting surface (e.g. moisture content), meteorological variables, and construction practices employed.

To reduce the emission of fugitive dust and minimize impacts on the local environment the construction contractor will adhere to a number of strictly enforceable mitigation measures. These measures may include:

- Using wetting agents to control and suppress dust from construction debris;
- Ensuring that all trucks traveling to and from the Project Site will be fully covered;
- Removing construction debris regularly;
- Monitoring construction practices closely to ensure any emissions of dust are negligible;
- Cleaning streets and sidewalks to minimize dust and dirt accumulation;
- Monitoring construction activities by the job site superintendent and safety officer; and
- Wheel-washing trucks before they leave the Project Site during the excavation phase.

Construction Noise Impacts

To reduce the noise impacts of construction on the surrounding neighborhood, a number of noise mitigation measures will be included in the CMP. Some of the measures that may be taken to ensure a low level of noise emissions include:

- Initiating a proactive program for compliance to the City of Boston's noise limitation impact;
- Scheduling of work to be performed around permitted times and in a way that is beneficial and cost-efficient.;
- Using mufflers on all equipment and ongoing maintenance of intake and exhaust mufflers;
- Muffling enclosures on continuously operating equipment, such as air compressors and welding generators;
- Scheduling construction activities so as to avoid the simultaneous operation of the noisiest construction activities;
- Turning off all idling equipment;
- Reminding truck drivers that trucks cannot idle more than five (5) minutes unless the engine is required to operate lifts or refrigeration units;
- Locating noisy equipment at locations that protect sensitive locations and neighborhoods through shielding or distance;
- Installing a site barricade at certain locations;
- Identifying and maintaining truck routes to minimize traffic and noise throughout the project;

- Replacing specific construction techniques by less noisy ones where feasible-e.g., using vibration pile driving instead of impact driving if practical and mixing concrete off-site instead of on-site; and
- Maintaining all equipment to have proper sound attenuation devices.

4.5.5 *Rodent Control*

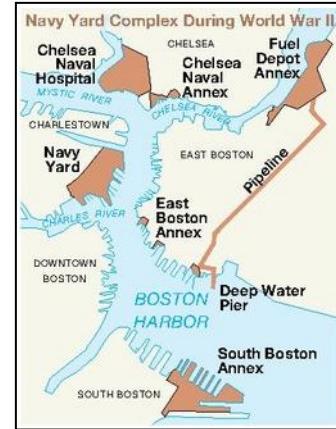
The City of Boston enforces the requirements established under Massachusetts State Sanitary Code, Chapter 11, 105 CMR 410.550. This policy establishes that the elimination of rodents is required for issuance of any building permits. During construction, rodent control service visits will be made by a certified rodent control firm to monitor the situation.

5.0 HISTORIC RESOURCES COMPONENT

This section provides a discussion of the history of the Project Site and the historic resources / districts in the Project vicinity.

5.1 Historic Resources on the Project Site and Property History

The Proposed site is located within the Massport Marine Terminal (MMT) of the Raymond L. Flynn Marine Park (RLFMP, formerly known as The Boston Marine Industrial Park (BMIP). The RLFMP is a 191-acre industrial park located in a part of South Boston known as Commonwealth Flats, an expanse of intertidal flats. The Commonwealth Flats area was filled by the Commonwealth for economic development purposes in the late 1800s and early 1900s, when land, piers and channels were created. In 1920, the U.S. Department of Defense acquired a portion (including all of what is now the RLFMP) in two separate purchases – 167 acres to be used as the South Boston Naval Annex and 58 acres for use as South Boston Army Annex. In 1977, the City of Boston, acting through the EDIC, secured ownership of the 167-acre South Boston Naval Annex from the U.S. Department of Defense. The “Marine Industrial Park” as the area came to be known, was created to provide jobs for City residents and enhance the City’s economy. In 1983, the EDIC purchased another 24 acres that were formerly part of the South Boston Army Base [adapted from <http://www.bostonmarineindustrialpark.com/about/history-of-the-park/>circa March 9, 2012].



EDIC executed a lease effective in February 1980 of the Jetty Area and Water Area in the Boston Marine Industrial Park in Boston's Inner Harbor (formerly the South Boston Naval Annex), intended to be filled in and made available for Permitted Uses. The project site is currently vacant land, and it is not expected that the Project will cause adverse impacts on the historic or architectural elements of nearby historic resources outside the Project Site.

The site was dredged to an approximate elevation of -38 to -40 feet for the former U.S. Navy pier at this location. The Navy pier was subsequently demolished, and the area was filled in to an approximate elevation of +16 feet Boston City Base (“BCB”). During construction of the Central Artery/Tunnel project, portions of Parcel 6A were used to store excavated material backfill and other construction materials. After completion of the Central Artery/Tunnel project, the area was paved, and has since been used, sporadically, as a parking lot.

Based on BPDA plans, Navy Piers Nos. 1 through 7 existed in the vicinity of Sub-Parcel 6A on earlier plans before 1985. The historic resources located within the Project's vicinity are depicted on **Figures 5-1** and **5-2**.



Parcel 6 Development

1/4-Mile Radius

Inventoried Property

Figure 5-1. Historic Resources

Historic Resources



5.2 Archeological Resources within the Project Site

The Project Site is located on filled land/soils. The land was filled by Massport under a sublease from EDIC, dated 1980, with urban fill deposited directly onto the existing Naval Annex piers and into Boston Harbor. No previously identified archaeological resources are located within the Project site and, therefore, no impacts to archaeological resources are anticipated

6.0 INFRASTRUCTURE SYSTEMS COMPONENT

6.1 Introduction

Due to ongoing development, there is significant infrastructure surrounding Massport Parcel 6, the subject of this PNF, and it has been determined that sufficient capacity exists to service the project needs for sewer, water, storm drainage, electrical service, telecommunications and gas.

The following sections describe existing sanitary, water, storm drainage electric, telecomm and gas available in the vicinity of the project Site. Detailed infrastructure analysis and design will be provided as final design of the project progresses. A Boston Water and Sewer Commission site plan and General Service Application will be required for the water, sanitary sewer and drainage connections, and the design of those facilities will be coordinated with the BWSC.

6.2 Wastewater

6.2.1 Existing Sanitary Sewer System

There are two sanitary sewer systems in the vicinity of Parcel 6. Both are controlled by the Boston Water and Sewer Commission, but only the Northern Avenue system has been found to have capacity for the proposed Parcel 6 construction (please see **Figure 6-1. BWSC Sanitary Sewer Map**). As outlined elsewhere in this report, the proposed Parcel 6 construction consists of a seafood processing plant for the Boston Sword and Tuna building with gross floor area of approximately 48,000+/- square feet, a seafood industrial and freezer building of 67,000+/- square feet, and a mixed-use garage building, including an over-the-counter seafood shop and union hall, of 101,300+/- square feet.

6.2.2 Project-Generated Sanitary Sewer Flow

All uses on Parcel 6 are estimated to approximate 50,000 gallons per day of sanitary sewer flow.

6.2.3 Sanitary Sewer Connection

In order to connect to the sanitary sewer system which has capacity, a new pumping station on Parcel 6 will be required. It is anticipated that that pumping station will be constructed on the Parcel 6 property and connected to the existing sewer system by a force main going up Tide Street and running along the Track 61 easement to the manhole at the intersection of Fid Kennedy Ave and Seafood Way. The pumping station will be designed not only to accommodate the approximately 50,000 gallons per day flow expected from Parcel 6, but to also include an additional 50,000 gallons of flow likely to be generated from development on MMT Parcels 7 and 8. The pumping station will be owned and managed by Pilot.



6.2.4 Effluent Quality

The predominant effluent discharged from the proposed construction on Parcel 6 will be seafood processing waste. This waste is pre-treated by screen filters and a settling tank, which will then be removed as solid waste. The remaining liquid discharge from the processing and wash-down is expected to have the following characteristics of seafood processing waste. The BOD, pH and solids limitations are within concentrations which will then be allowed direct discharge to the Boston Water and Sewer sewage collection system via the centrifugal pumps.

6.2.5 Sewer System Mitigation

The proposed project will include measures to reduce the primary source of sewage flow, which is wash-down of the fish processing and storage areas. Tests have shown that the use of pressure wash-down devices, as opposed to line pressure, has reduced water consumption by approximately 40% in fish-processing plants. These wash-down devices will be utilized in all fish-processing and storage areas. In addition, the project will be designed to minimize inflow and infiltration into the Boston Water and Sewer sanitary system.

6.3 Water System

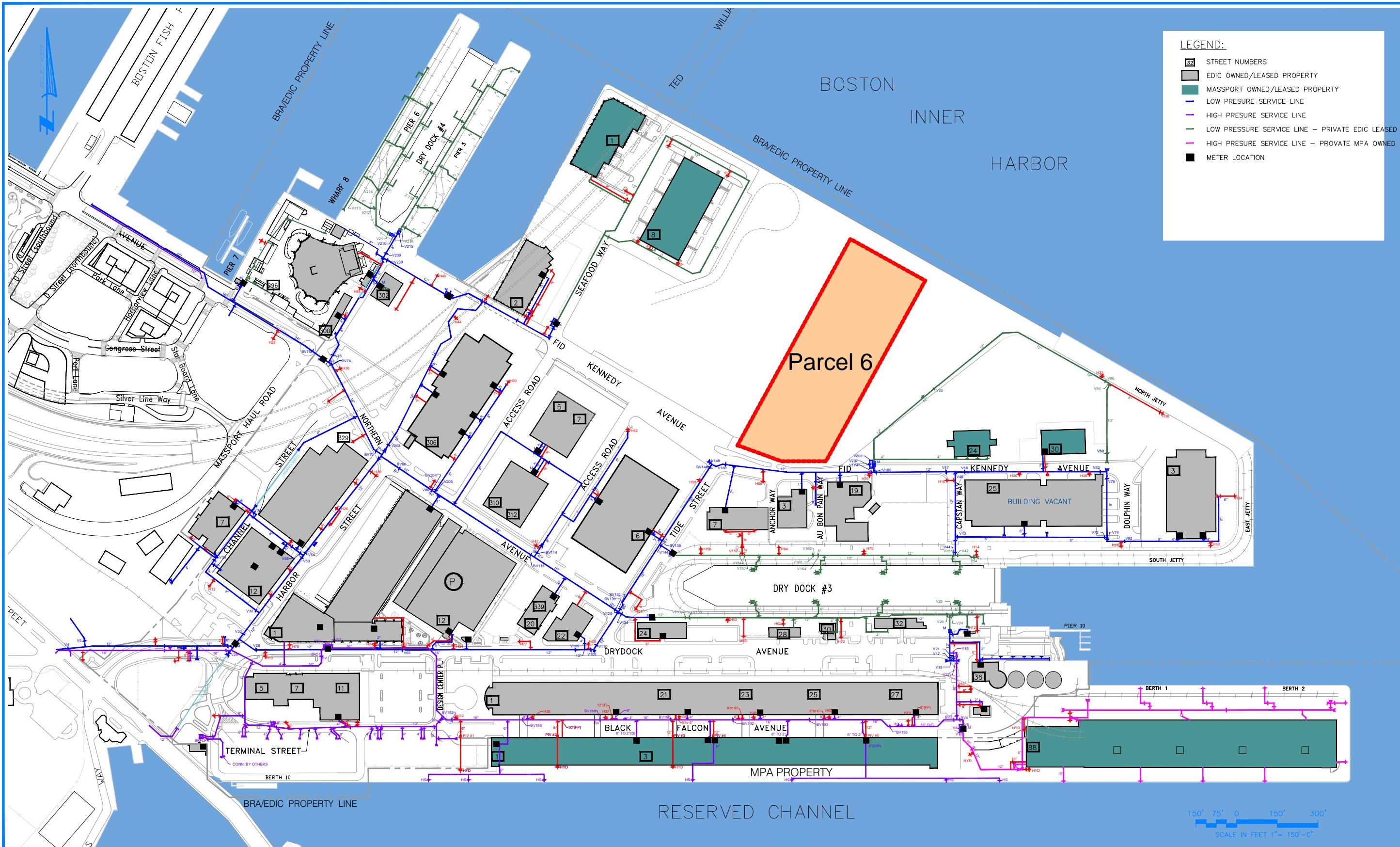
6.3.1 Existing Water Service

Existing water in the area is supplied by a 12-inch ductile iron water line currently under construction by others in Tide Street Extension. The proposed water distribution consists of the extension of the 12-inch line along Boston Harbor, southerly down a road provisionally designated as Bollard Way and looping in an easement back through Parcel 6 to the Tide Street Extension (please see **Figure 6-2. BWSC Water Supply Map**).

While not required for the proposed flows of the seafood-processing plants, the extension will consist of 12-inch ductile iron lines and hydrants, which will supply the necessary flows for fire protection in the area. The nearest existing hydrants are two hydrants on Tide Street Extension, and there are two hydrants proposed on Bollard Way. Proposed water services for both fire prevention, processing and domestic consumption will be taken either from the existing 12-inch line on Tide Street Extension or the 12-inch line extended in easement through Parcel 6. Hydrant flow testing will be conducted at the existing hydrants to confirm adequate pressure and volume for fire protection.

6.3.2 Anticipated Water Consumption

The anticipated water consumption for all proposed construction on Parcel 6 is 50,000 gallons per day. Use and meter sizing will be submitted to the Boston Water and Sewer Commission as part of the Site Plan Approval process.



6.3.3 *Proposed Water Services*

Separate domestic and fire protection services will be provided from the 12-inch main to the proposed construction. While the domestic water required for process will need to be determined by each user, it is expected that domestic supply line and meters will be either 3 inch or 4 inch in size. Fire sprinkler lines of 6-inch diameter are also anticipated. An area will be provided in each proposed structure and will be consistent with the requirements of Boston Water and Sewer Commission's automatic meter-reading systems. Dual Check Valve or Reduced Pressure Zone back flow preventors will be installed on fire service connections, as required by 310 CMR 22.22 and the Plumbing Code.

6.4 *Storm Drainage System*

6.4.1 *Existing Storm Drainage System*

As discussed in **Section 4.2**, two stormwater collection and discharge systems are available for the Parcel 6 development. One is a new 36-inch pipe running from south to north along Tide Street adjacent to Parcel 6, with an outfall and tide gate at its northerly terminus in Boston Harbor. The second is a 48-inch collection system which discharges along the Track 61 easement parallel to Fid Kennedy Avenue, with ultimate discharge and tide gate at Boston Harbor.

6.4.2 *Proposed Storm Water System*

It has been predetermined that 60% of the flow from the proposed construction on Parcel 6 is to go in the direction of the Fid Kennedy Avenue drainage system, and 40% of the flow to the new outfall discharge along Tide Street. Two classes of discharge will occur from the site. Water from roof runoff, which is presumed clean, will be discharged from the roof collection system directly to the respective trunk drainage system. Runoff from parking lots and other developed areas will run through a required treatment train in order to achieve 80% total suspended solids removal, as required by the Stormwater Management Standards of the Wetlands Protection Act.

In addition, an off-line system will be designed to capture the first inch of runoff from all new impervious areas, which will be collected in a subsurface stormwater management system. As mentioned previously, this is a requirement of the Boston Water and Sewer Commission. The purpose of the infiltration is to improve the water quality of discharge by infiltrating the first inch of runoff, thus reducing nitrogen-loading at the free outfall.

6.5 *Electrical Service*

Eversource owns and maintains the electric transmission system in this area of South Boston. During the design phase of the buildings, electric load analysis will be conducted and proper service size will be determined. All buildings will require 3-phase power, and locations of transformers will be provided at elevated locations to insure sustainability and resiliency in the event of flooding.

Final project design will include energy-saving measures in the process train, and all lighting will be high-efficiency LED.

6.6 Telecommunications Systems

Verizon owns and maintains the telecommunication system adjacent to Parcel 6, and adequately-sized conduits to the underground system are being provided at various locations in the Parcels so that the proposed buildings can be serviced.

6.7 Gas Systems

An existing gas main in Fid Kennedy Avenue is currently being extended along the Tide Street Extension and onto the Parcel 5 Land. At the approximate midpoint of Tide Street Extension, a tee and main stub for Parcel 6 will be provided for future connections. Suitably-sized gas stubs are being provided to connect to the systems.

6.8 Schematic Wastewater, Water and Utility Plans- Parcel 6

Please see the figures that follow:

Figure 6-3. Schematic Wastewater Plan -Parcel 6

Figure 6-4. Schematic Water Plan - Parcel 6

Figure 6-5. Schematic Stormwater Plan - Parcel 6

Figure 6-6. Schematic Telecom Electrical Conduit Plan - Parcel 6

Figure 6-7. Schematic Natural Gas Plan - Parcel 6

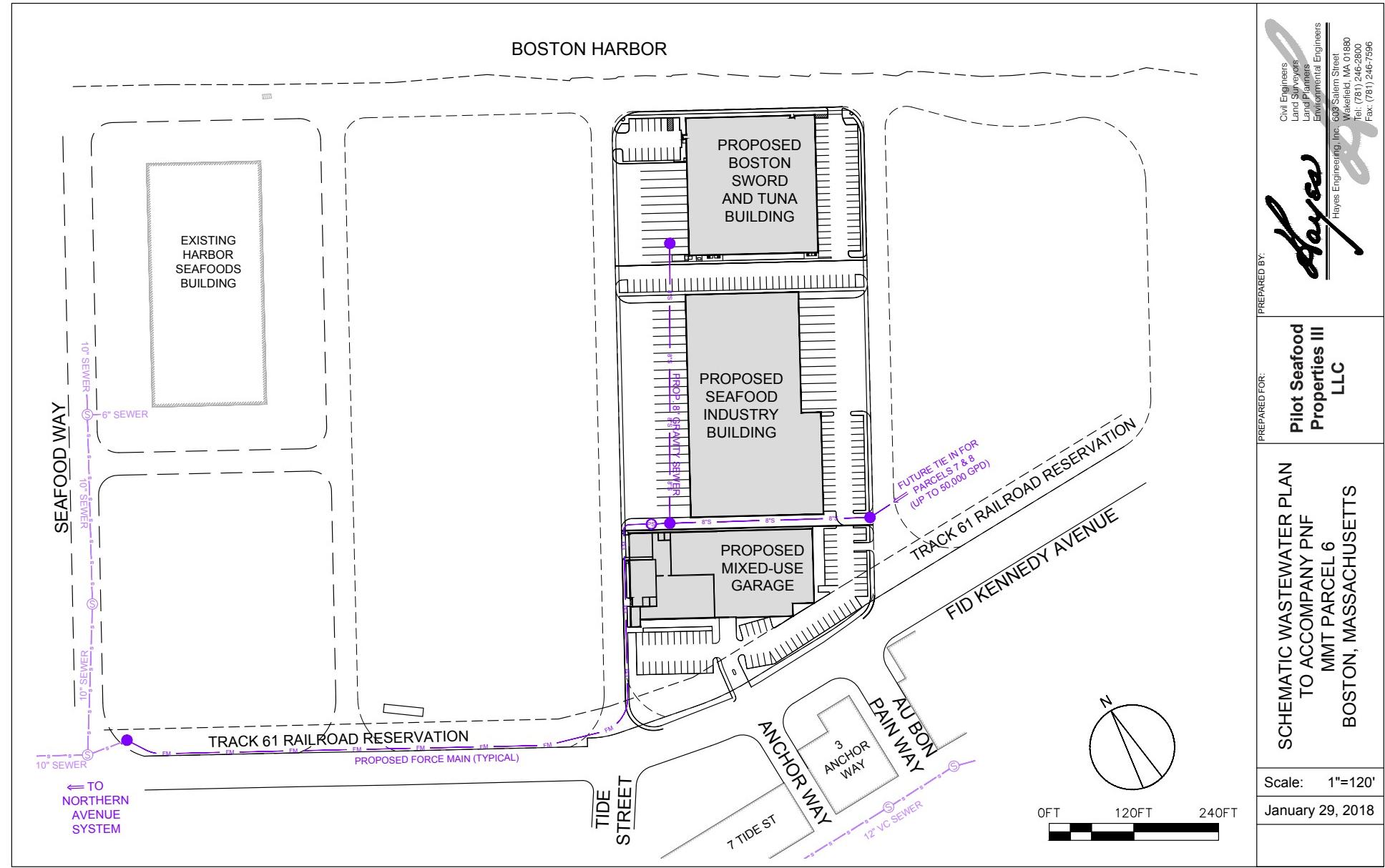


Figure 6-3. Schematic Wastewater Plan- Parcel 6

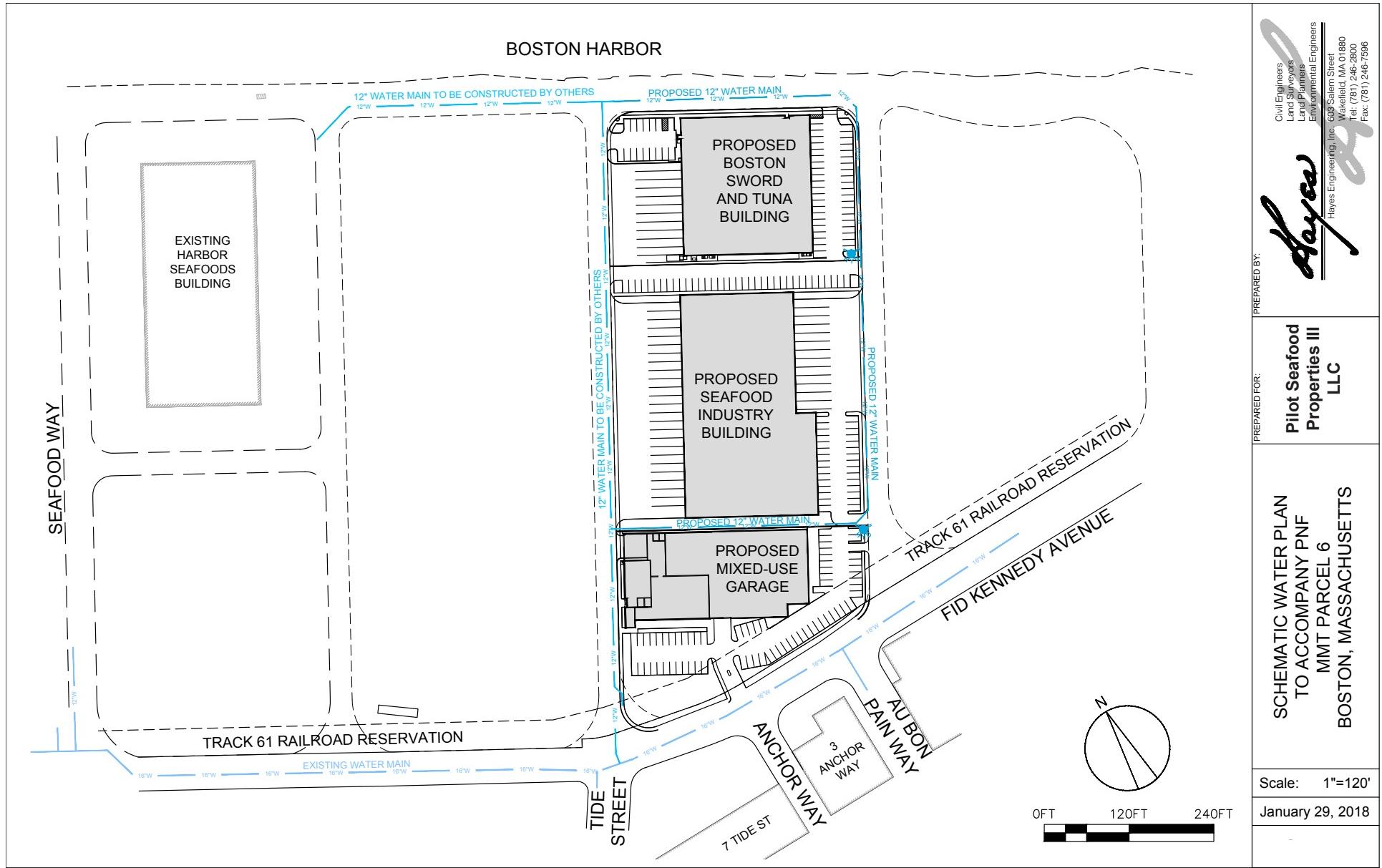


Figure 6-4. Schematic Water Plan- Parcel 6

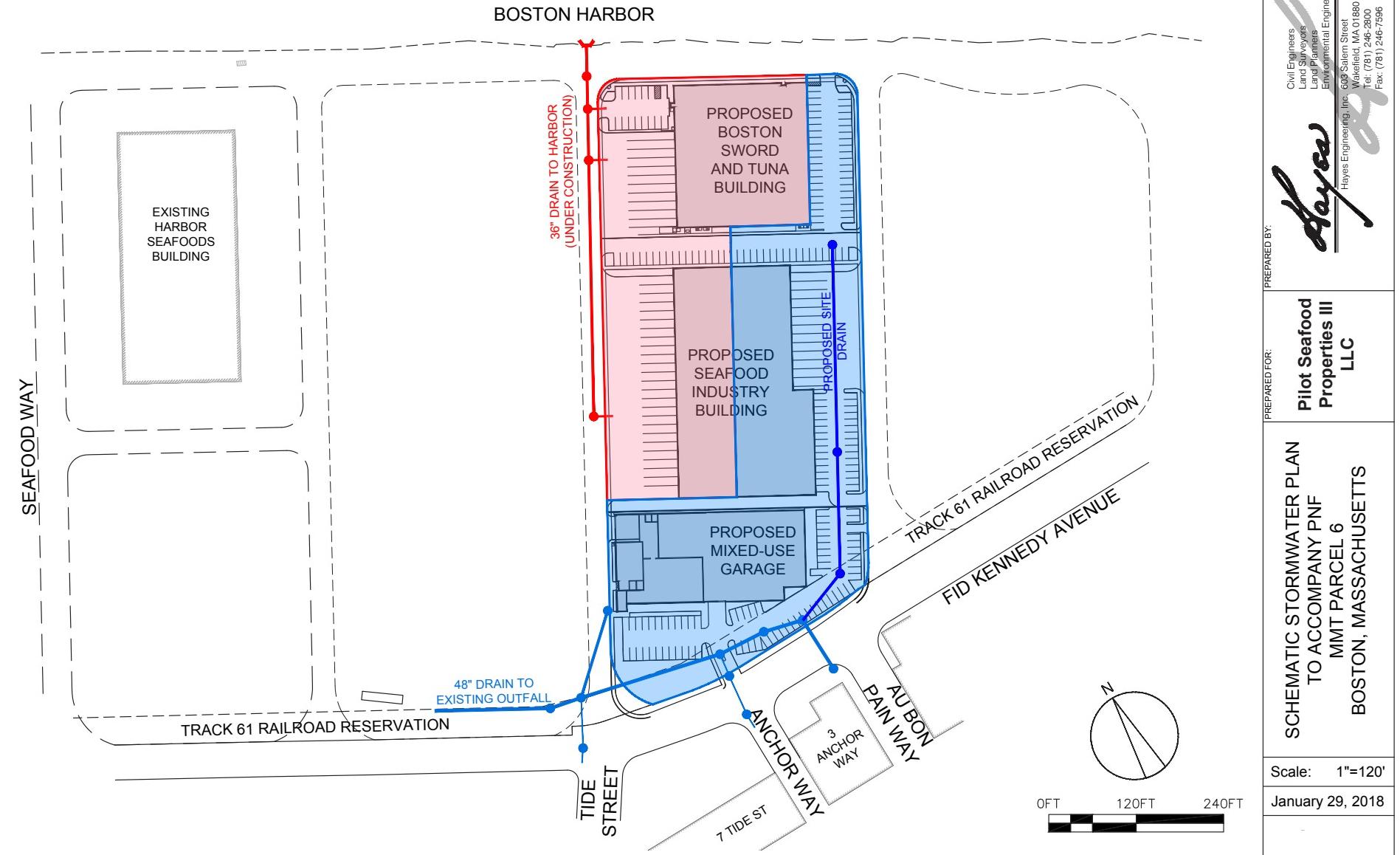


Figure 6-5. Schematic Stormwater Plan- Parcel 6

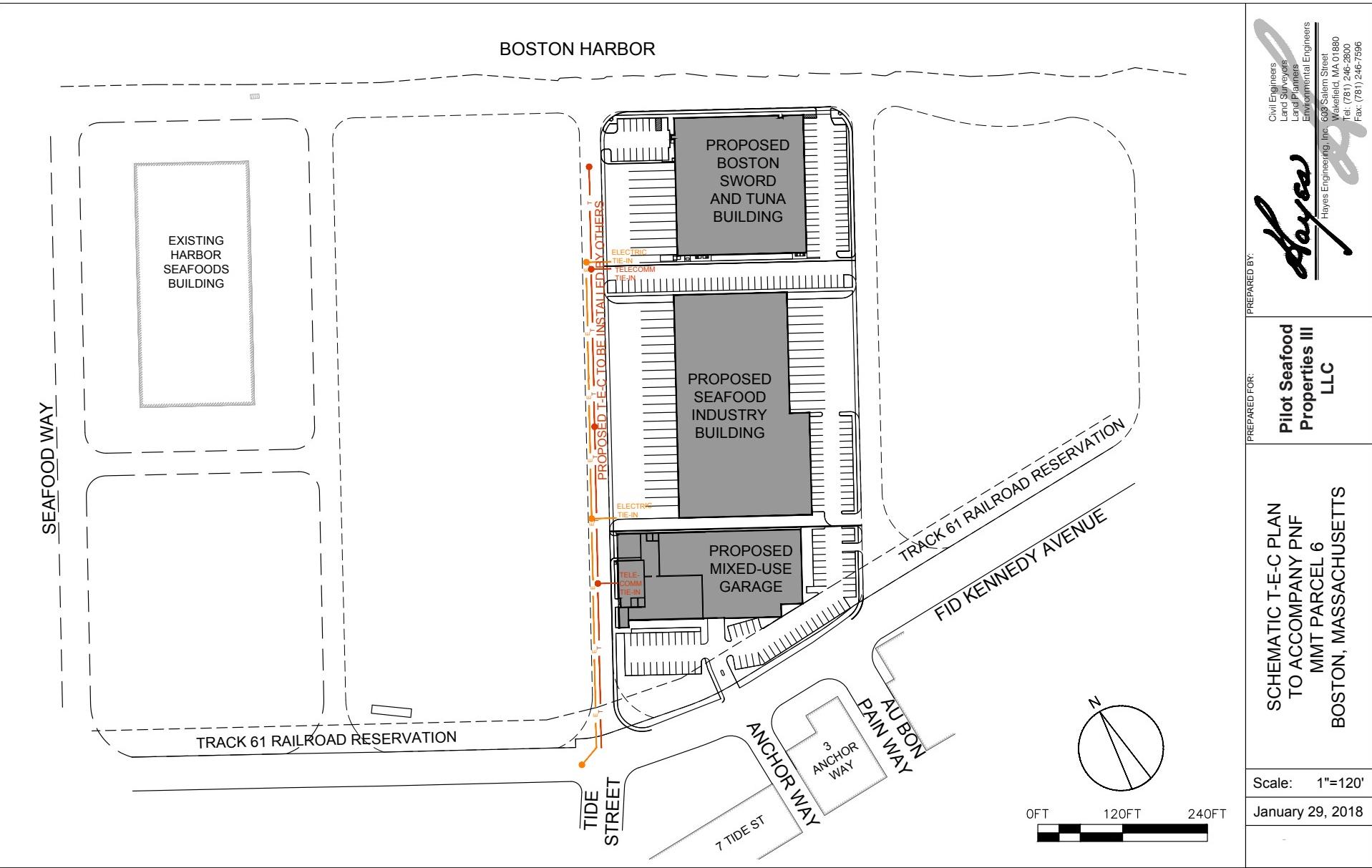


Figure 6-6. Schematic T-E-C Plan- Parcel 6

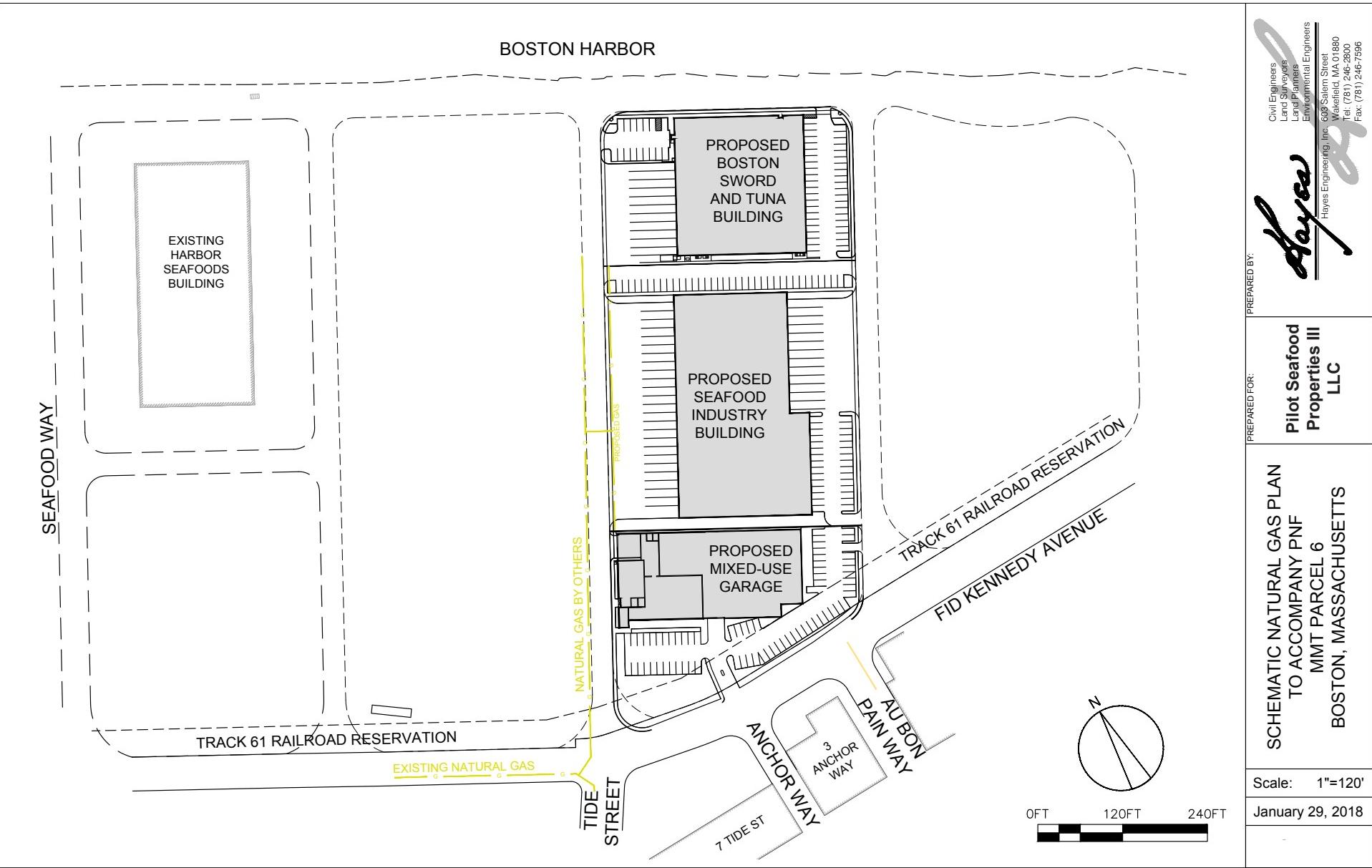


Figure 6-7. Schematic Natural Gas Plan- Parcel 6

7.0 TRANSPORTATION COMPONENT

7.1 Introduction

Howard Stein Hudson (HSH) has conducted an evaluation of the transportation impacts of the proposed redevelopment to Parcel 6 (the “Project” and/or “Site”) in the Massport Marine Terminal (MMT) within the Raymond L. Flynn Marine Park (RLFMP) in South Boston. This transportation study adheres to the Boston Transportation Department’s (BTD) Transportation Access Plan Guidelines and the Boston Planning and Development Agency (BPDA) Article 80 development review process. The study includes an evaluation of existing conditions, future conditions with and without the Project, projected parking demand, transit services, and pedestrian and bicycle activity.

7.2 Project Description

The Project site, located along Fid Kennedy Avenue in the MMT, is currently a vacant and empty parcel. The Project will include three sub-parcels, which will be leased to seafood processing and cold storage tenants. Additionally, one parcel will include a parking garage with an over-the-counter seafood shop and new Union Hall for the International Longshoremen’s Association (ILA) on the ground floor. The proposed development program is summarized in **Table 7-1**.

Table 7-1. Parcel 6 Development Program

Parcel	Land Use	Approx. Size (square feet, sf)	Parking (spaces)
Sub-Parcel 6A	Boston Sword & Tuna Plant	48,000 sf	57 surface
Sub-Parcel 6B	Seafood Industry Building	67,000 sf	63 surface
Sub-Parcel 6C	Mixed-Use Garage Building Parking Over-the-Counter Seafood Shop ILA Hall	96,680 sf 5,000 sf 2,500	66 surface 280 garage
Total Parcel 6		~214,180 sf	186 surface 280 garage 466 total spaces¹

¹ The parking supply in the garage is intended to serve parking demands for Parcel 6 and other adjoining businesses on nearby parcels. See **Section 7.5.2** for a discussion of parking.

7.2.1 Study Area

The transportation study area is generally bounded by Tide Street to the east, Harbor Street to the west, Fid Kennedy Avenue to the north, and Northern Avenue to the south. The study area, shown in **Figure 7-1**, includes the following three intersections:

- Fid Kennedy Avenue/Tide Street (unsignalized);
- Northern Avenue/Tide Street (unsignalized); and
- Northern Avenue/Seafood Way (unsignalized).

7.2.2 Study Methodology

The Existing (2018) Condition analysis includes an inventory of the existing transportation conditions such as traffic characteristics, parking, curb usage, transit, and pedestrian circulation and bicycle facilities. Existing counts for vehicles, bicycles, and pedestrians were collected at the study area intersections. The traffic data collection effort forms the basis for the transportation analysis conducted as part of this evaluation.

The future transportation conditions analysis evaluates potential transportation impacts associated with the Project. Long-term impacts are evaluated for the year 2025, based on a seven-year horizon from the year of the filing of this traffic study.

The No-Build (2025) Condition includes both general background traffic growth, traffic growth associated with specific developments (not including this Project), and transportation improvements that are planned near the Project site.

The Build (2025) Condition includes a net increase in traffic volume due to the addition of Project-generated trip estimates to the traffic volumes developed as part of the No-Build (2025) Condition. Expected roadway, parking, transit, pedestrian, and bicycle accommodations, as well as loading capabilities and deficiencies are identified.

The final part of the transportation study identifies measures to mitigate Project-related impacts and to address any traffic, pedestrian, bicycle, transit, safety, or construction related issues that are necessary to accommodate the Project. An evaluation of short-term traffic impacts associated with construction activities is also provided.

7.3 Existing (2018) Condition

This section includes descriptions of existing study area roadway geometries, intersection traffic control, peak-hour vehicular and pedestrian volumes, average daily traffic volumes, transit availability, parking, curb usage, and loading conditions.

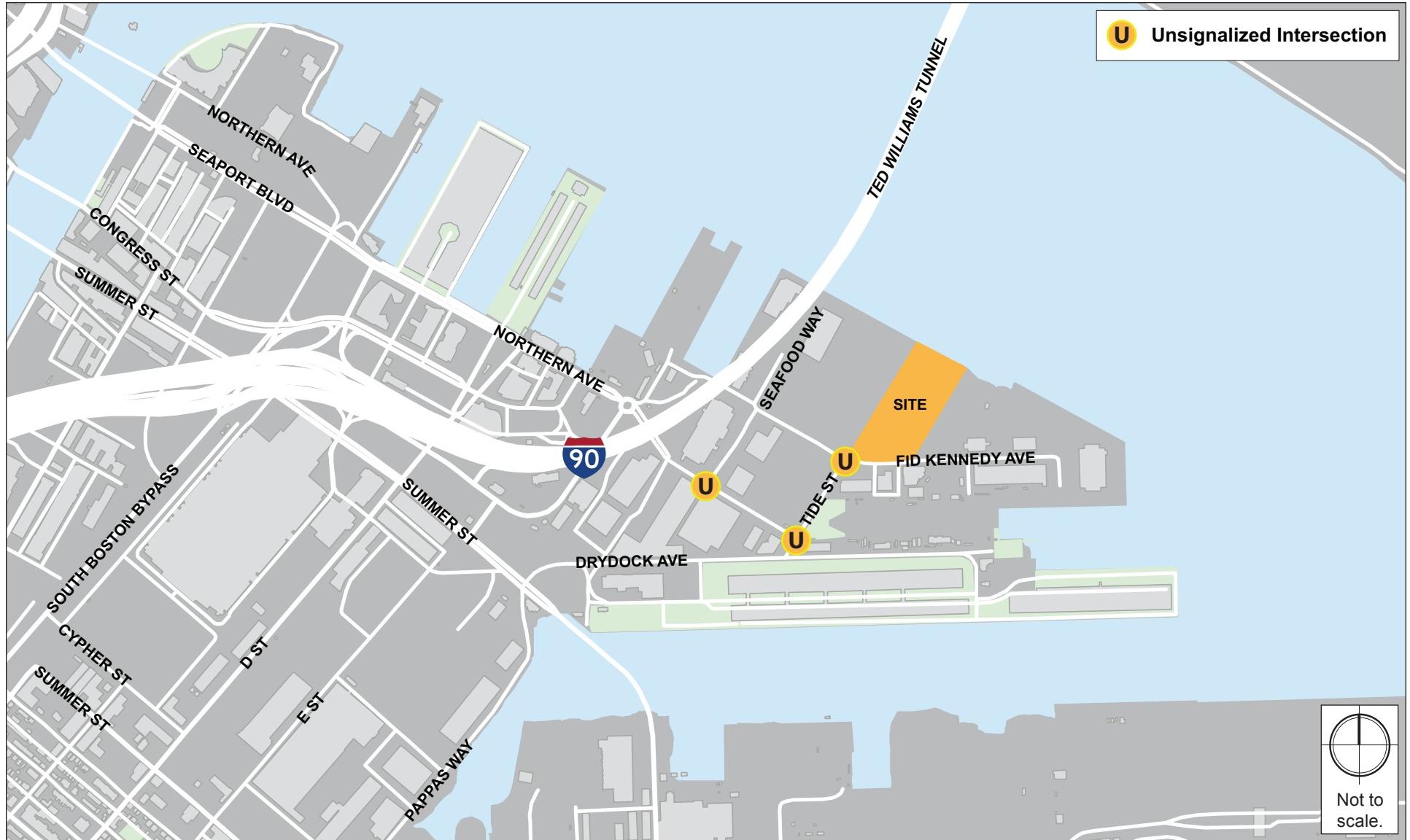


Figure 7-1.
Study Area Intersections

7.3.1 Existing Roadway Conditions

The study area includes the following roadways, which are categorized according to the Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning functional classifications:

Northern Avenue is a two-way, two lane roadway located south of the Project site. Northern Avenue is classified as an urban minor arterial roadway east of D Street and an urban collector from Sleeper Street to Seaport Boulevard under BTD jurisdiction and generally runs in an east-west direction. Within the study area, on-street parking is generally restricted. Sidewalks are provided on both sides of the roadway.

Tide Street is a two-way, two lane roadway located south of the Project site. Tide Street is classified as a local roadway under BTD jurisdiction that generally runs in a north-south direction between Fid Kennedy Avenue to the north and Drydock Avenue to the south. Within the study area, on-street parking is restricted and sidewalks are provided on both sides of the roadway.

Fid Kennedy Avenue is a two-way, two lane roadway located directly to the south of the Project site. Fid Kennedy Avenue is classified as a local roadway under BTD jurisdiction that generally runs in an east-west direction between Seafood Way to the west and Dolphin Way in the east. Within the study area, on-street parking is restricted and sidewalks are provided on both sides of the roadway.

Seafood Way is a two-way, two lane roadway located to the east of the Project site. Seafood Way is classified as local roadway under BTD jurisdiction that generally runs in a north-south direction between Fid Kennedy Avenue to the north and Northern Avenue to the south. Within the study area, on-street parking is restricted. Sidewalks are provided on both sides of the roadway.

7.3.2 Existing Intersection Conditions

The existing study area intersections are described below. Intersection characteristics such as traffic control, lane usage, pedestrian facilities, pavement markings, and adjacent land use are described.

Fid Kennedy Avenue/Tide Street is a three legged, unsignalized intersection with three approaches. The Fid Kennedy Avenue eastbound and westbound approaches are both stop controlled and consist of a shared through/right-turn lane and left-turn/through lane, respectively. The Tide Street northbound approach is also stop controlled and consists of a shared left-turn/right-turn lane. On-street parking is not permitted at any of the approaches of this intersection. Sidewalks are provided along both sides of all approaches. Curb-ramps and crosswalks are provided across the westbound and northbound approaches.

Northern Avenue/Tide Street is a four legged, unsignalized intersection with four approaches. The Northern Avenue eastbound approach is stop controlled and consists of a shared left-turn/through/right-turn lane and a designated bicycle lane. There are MBTA bus stops on the northern and southern sides of this approach. The westbound approach is a driveway that is stop controlled and consists of a shared left-turn/through/right-turn lane. The Tide Street northbound and southbound approaches are both stop controlled and each consist of a shared left-turn/through/right-turn lane and a designated bicycle lane. On-street parking is not permitted on any of the approaches of this intersection. Sidewalks are provided along both sides of all approaches. Curb ramps and crosswalks are provided across all approaches.

Northern Avenue/Seafood Way is a four legged, unsignalized intersection with three approaches. The Northern Avenue eastbound approach consists of a shared left-turn/through/right-turn lane and a designated bicycle lane. The Northern Avenue westbound approach consists of a shared left-turn/through/right-turn lane and a designated bicycle lane. The Seafood Way southbound approach is stop controlled and consists of a shared left-turn/right-turn lane. The fourth leg of this intersection is a one-way southbound alleyway that connects to the 6th Street terminus. On-street parking is only permitted along the southern side of the eastbound approach. Sidewalks are provided along both sides of all approaches except the 6th Street alleyway. While curb ramps are provided across Seafood Way, a crosswalk is not provided across the approach.

7.3.3 Existing Parking and Curb Use

An inventory of the on-street parking and curb-use near the Project was conducted. While on-street parking is predominantly restricted, other curb uses include metered parking, reserved/permit parking, short-term visitor parking, handicap accessible parking and MBTA bus stops. The on-street parking and curb-use regulations within the study area are shown in **Figure 7-2**.

7.3.4 Car Sharing Services

Car sharing enables easy access to short-term vehicular transportation. Vehicles are rented on an hourly or daily basis, and all vehicle costs (gas, maintenance, insurance, and parking) are included in the rental fee. Vehicles are checked out for a specific time period and returned to their designated location.

Car sharing, predominantly served by Zipcar in the Boston area, provides easy access to vehicular transportation for those who do not have a car readily available. The nearby car sharing locations within walking distance of the Project site are shown in **Figure 7-3**.

7.3.5 Existing Traffic Data

Traffic volume data was collected in the study area intersections on Tuesday, January 2 and Wednesday, January 3, 2018. Turning Movement Counts (TMCs) were conducted during the weekday a.m. and weekday p.m. peak periods (7:00 – 9:00 a.m. and 4:00 – 6:00 p.m., respectively) at the study area intersections. The TMCs collected vehicle classification including car, heavy vehicle, pedestrian, and bicycle movements. Based on the TMC data, the vehicular traffic peak hours for the study area intersections are generally 8:00 a.m. – 9:00 a.m. and 4:30 p.m. – 5:30 p.m. The detailed traffic counts are provided in **Appendix B**.



Figure 7-2.
On-Street Parking

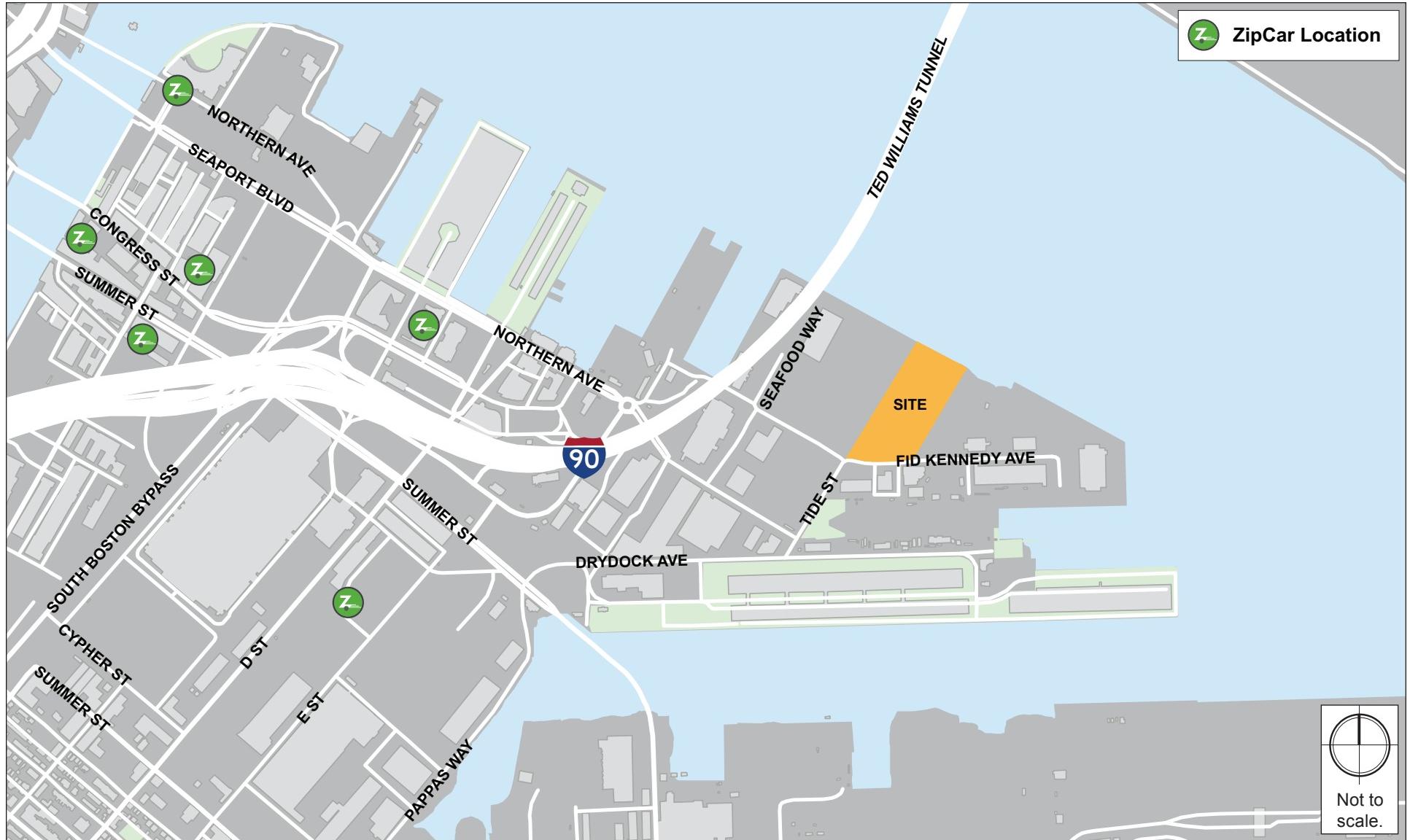


Figure 7-3.
Car Sharing Services

7.3.7 Seasonal Adjustment

In order to account for seasonal variation in traffic volumes throughout the year, data provided by MassDOT were reviewed. The most recent (2011) MassDOT Weekday Seasonal Factors were used to determine the need for seasonal adjustments to the January 2018 TMCs. The seasonal adjustment factor for roadways similar to the study area (Group 6 – Urban Arterials) during the month of January is 1.03. This indicates that average month traffic volumes are approximately 3% higher than the traffic volumes that were collected. The traffic counts were adjusted upward to reflect average month conditions in order to provide a conservative analysis consistent with the peak season traffic volumes. The MassDOT 2011 Weekday Seasonal Factors table is provided in **Appendix B**.

7.3.8 Existing (2018) Traffic Volumes

Existing traffic volumes were balanced between intersections to develop the Existing (2018) Condition vehicular traffic volumes. The Existing (2018) Condition weekday a.m. and p.m. peak hour traffic volumes are shown in **Figure 7-4** and **Figure 7-5**, respectively.

7.3.9 Existing Pedestrian Conditions

In general, the sidewalks provided along nearby roadways are in good condition. The sidewalk along Fid Kennedy Avenue, on the southwest edge of the Project site, is approximately 4 – 6 feet wide. Crosswalks and curb ramps are provided at each of the three study area intersections.

To determine the amount of pedestrian activity within the study area, pedestrian counts were conducted concurrent with the TMCs at the study area intersection. The weekday a.m. and p.m. peak hour pedestrian volumes are presented in **Figure 7-6**.

7.3.10 Existing Bicycle Conditions

In recent years, bicycle use has increased dramatically throughout the City of Boston. The Project site is conveniently located near several bicycle facilities. The City of Boston’s “Bike Routes of Boston” map, updated in August 2013, indicates that The Harbor Walk, Harbor Street, and Northern Avenue are designated as beginner routes, suitable for all riders including new cyclists with no on-road experience. Summer Street, D Street, and Congress Street are designated as intermediate routes suitable for riders with some on-road experience. Bike lanes or sharrows are provided along Northern Avenue and D Street and a portion of Tide Street between Drydock Avenue and Northern Avenue.

Bicycle volumes were collected during the TMCs. The weekday a.m. and p.m. peak hour bicycle volumes are presented in **Figure 7-7**.

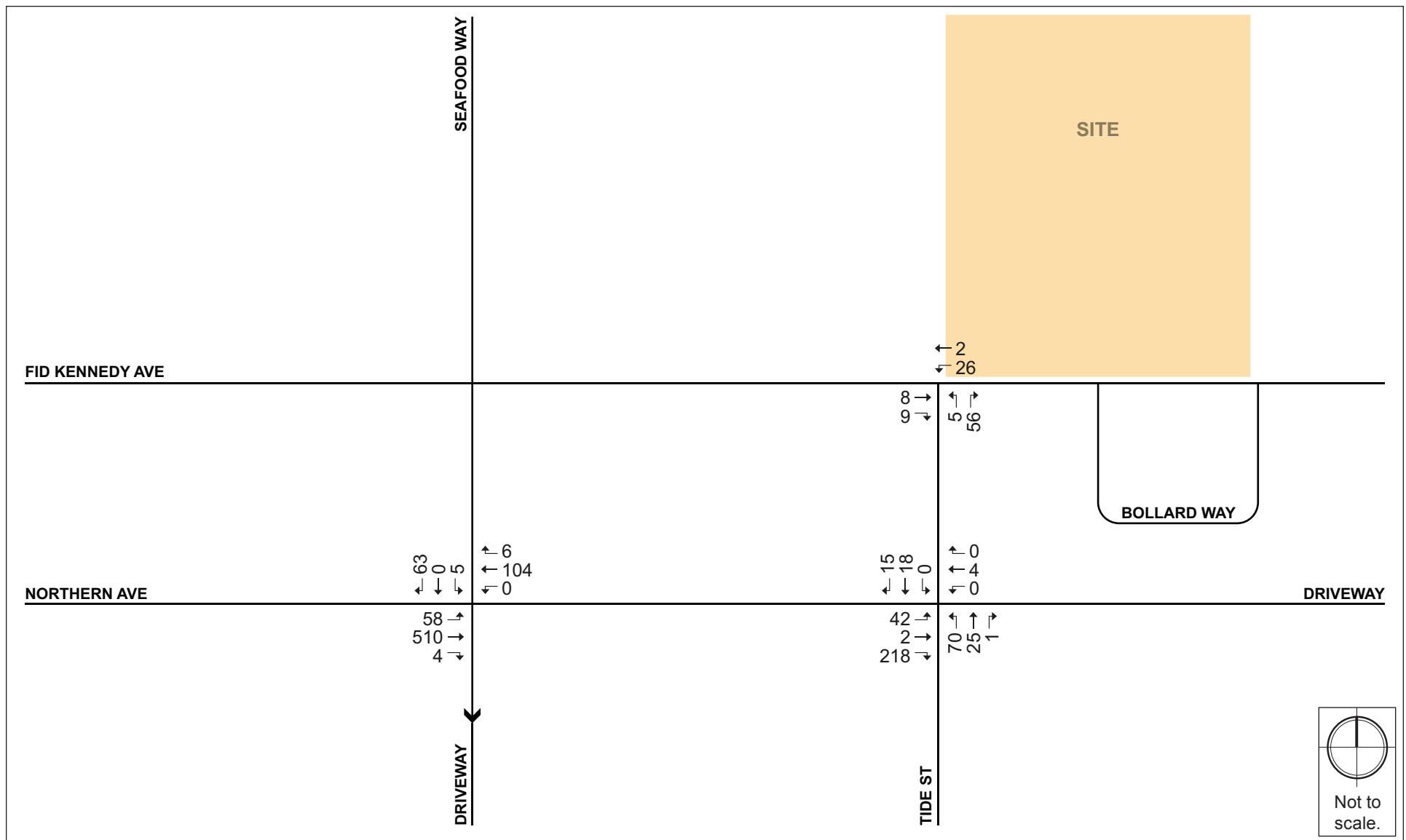


Figure 7-4.
Existing (2018) Condition Traffic Volumes, Weekday a.m. Peak Hour

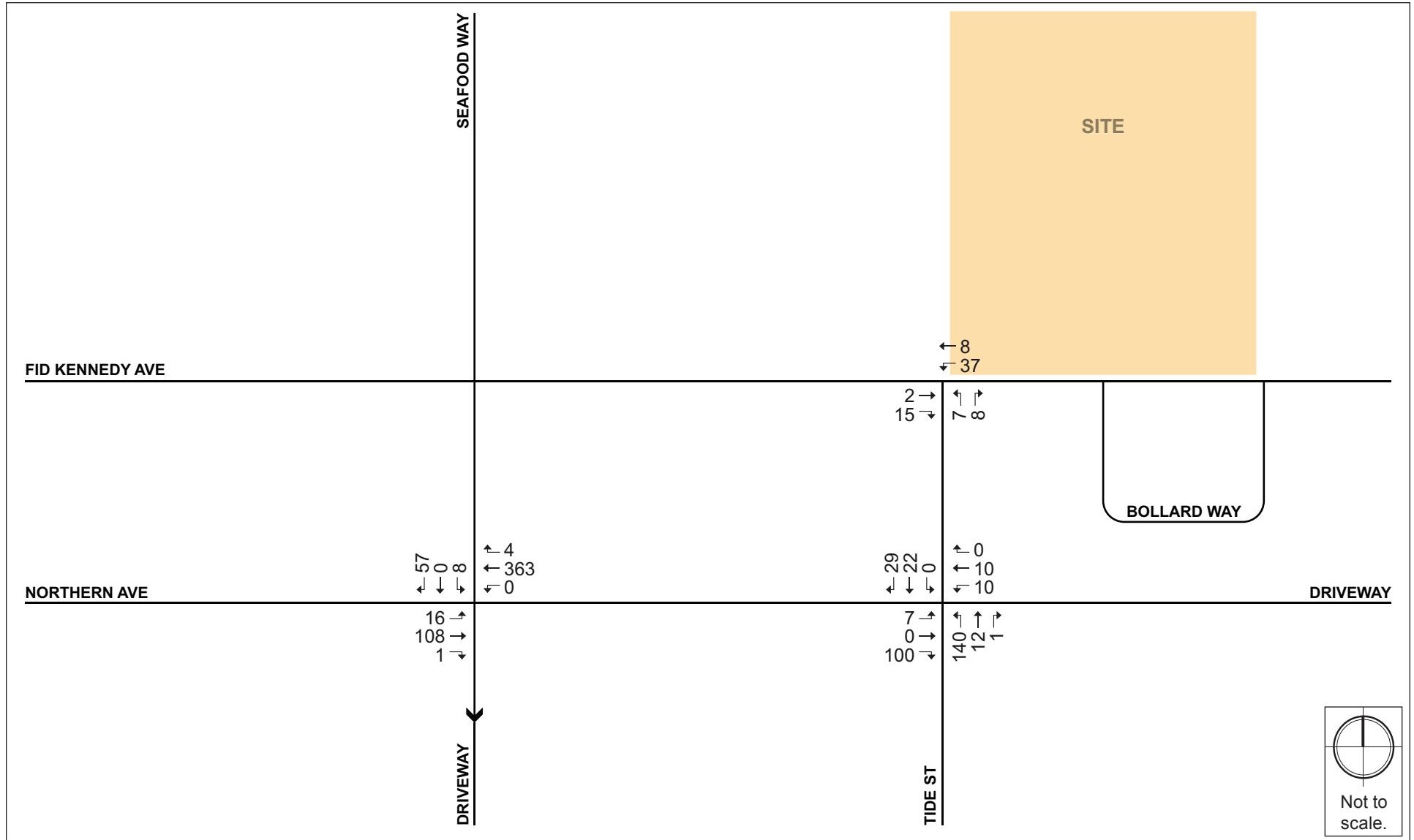


Figure 7-5.
Existing (2018) Condition Traffic Volumes, Weekday p.m. Peak Hour

a.m. XX
p.m. (XX)

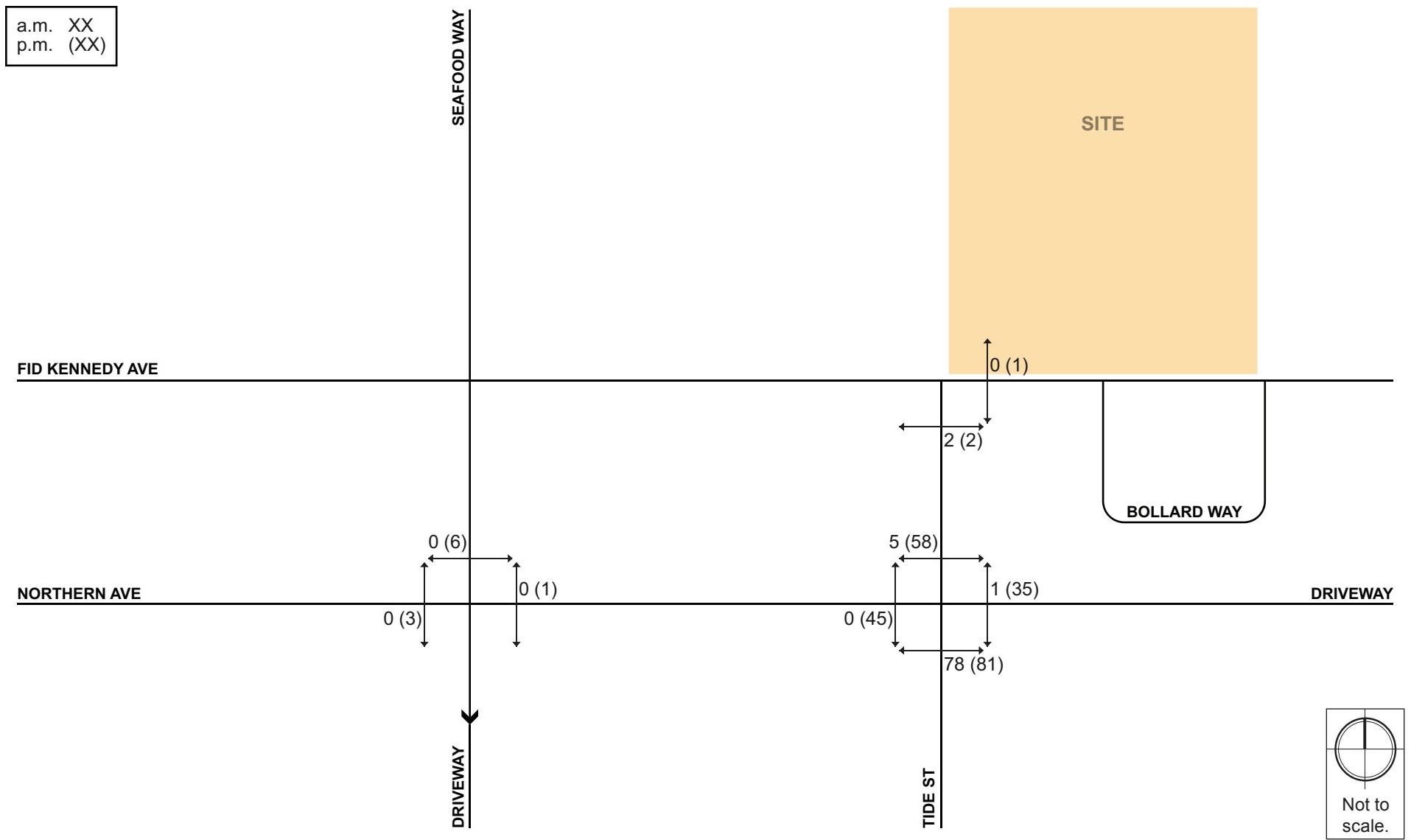


Figure 7-6.
Existing (2018) Condition Pedestrian Volumes, Weekday a.m. and p.m. Peak Hours

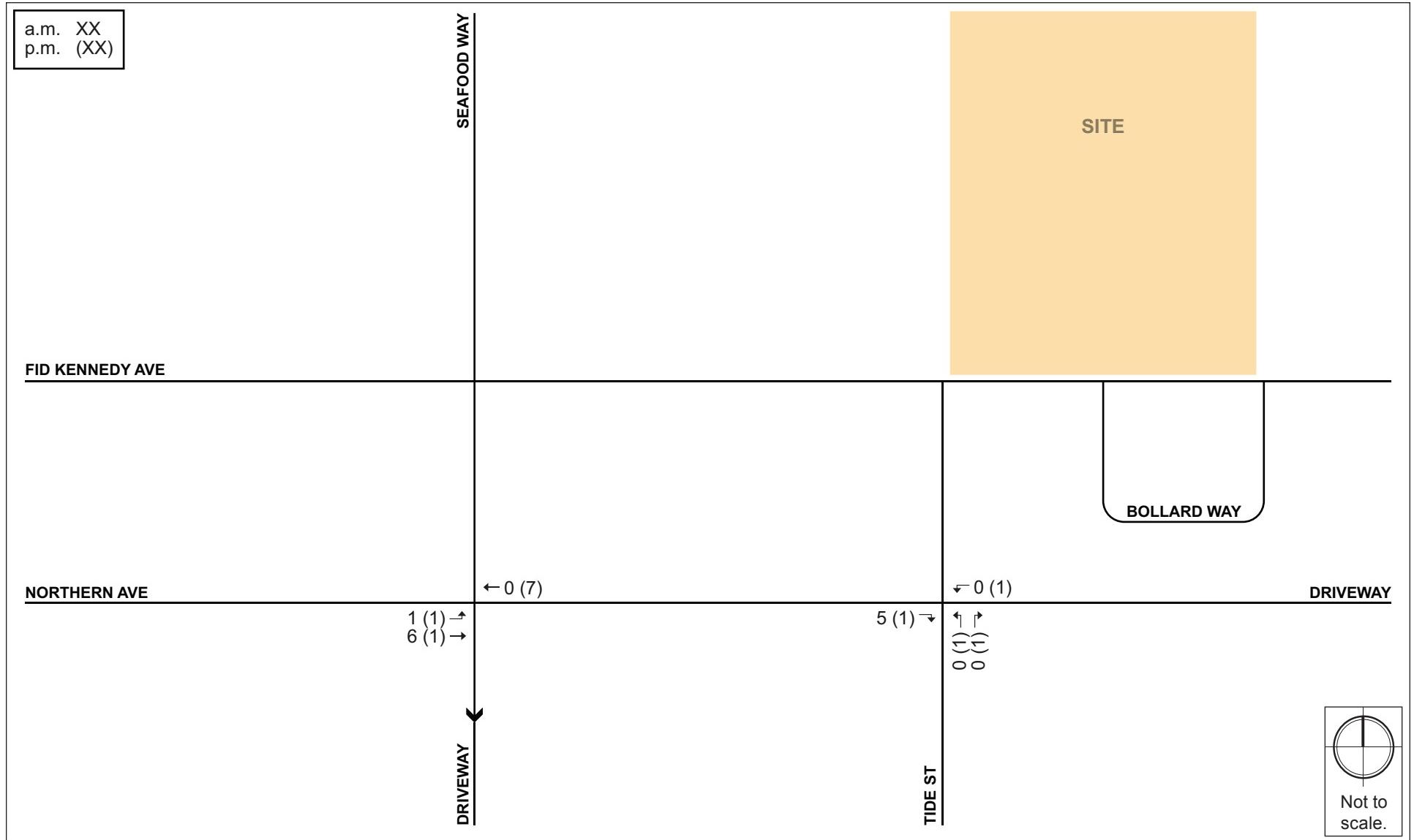


Figure 7-7.
Existing (2018) Condition Bicycle Volumes, Weekday a.m. and p.m. Peak Hours

7.3.11 Bicycle Sharing Services

The site is also located in proximity to bicycle sharing stations provided by Hubway. Hubway is the major bicycle sharing system in the Boston area, which was launched in 2011 and consists of over 185 stations and 1,800 bicycles in four municipalities. The Hubway locations near the Project site are shown in **Figure 7-8**.

7.3.12 Existing Public Transportation

Several public transportation options are located near the site. The Massachusetts Bay Transportation Authority's (MBTS) Silver Lines SL1 and SL2 Branches provide access in the vicinity of the site. Additionally, the MBTA operates two bus routes within a half-mile of the Project site, and seven others within three-quarters of a mile of the Project site. The nearby public transit services are shown in **Figure 7-9** and those within a half-mile of the site are summarized in **Table 7-2**.

Table 7-2. Existing Public Transportation

Service	Description	Peak-hour Headway ¹ (minutes)
Silver Line		
SL1 Branch	Logan Airport – South Station via Waterfront	8
SL2 Branch	Design Center – South Station via Waterfront	5
Bus Routes		
Route 4	North Station – World Trade Center	12
Route 7	City Point – Otis & Summer Streets	4

¹ Source: MBTA.com, December 2017. Headway is the time between vehicles

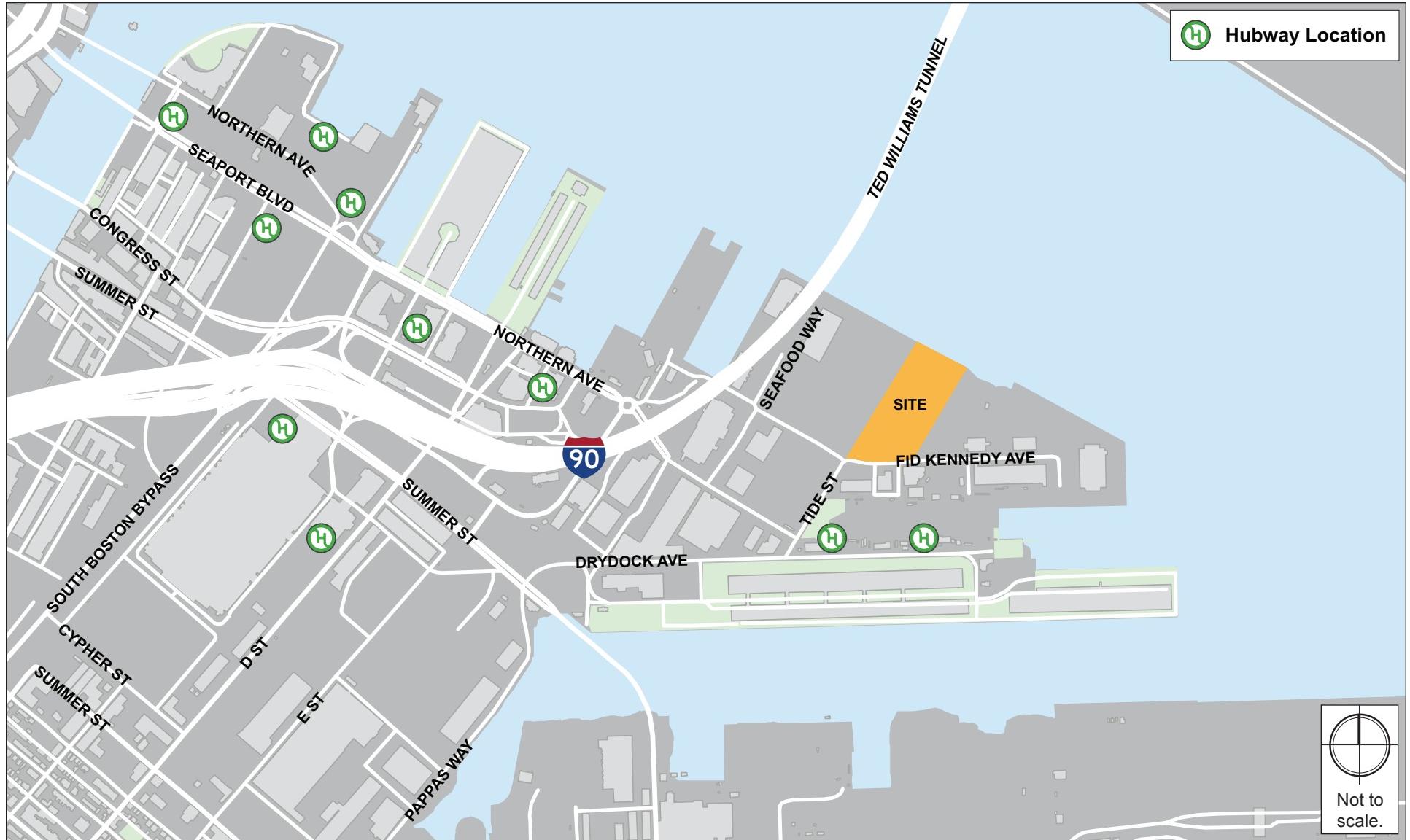


Figure 7-8.
Bicycle Sharing Services



Figure 7-9.
Public Transportation

7.4 No-Build (2025) Condition

The No-Build (2025) Condition reflects a future scenario that incorporates any anticipated traffic volume changes independent of the Project, and any planned infrastructure improvements that will affect travel patterns throughout the study area. Infrastructure improvements include roadway, public transportation, or pedestrian and bicycle improvements. The methodology to account for future traffic growth, independent of the Project consists of two factors: an annual growth rate and vehicles associated with specific developments near the Project. The No-Build (2025) Condition does not include the impact of the Project.

7.4.1 *Background Traffic Growth*

The first part of the methodology accounts for general future background traffic growth, independent of large development projects. The background traffic growth rate may be affected by changes in demographics, smaller scale development projects, or projects unforeseen at this time. Based on a review of recent and historic traffic data collected recently and to account for any additional unforeseen traffic growth, a one-half percent annual traffic growth rate was used.

7.4.2 *Nearby Development Traffic Growth*

The second part of the methodology identifies specific planned developments that are expected to be constructed within the future analysis time horizon. **Table 7-3** shows all of the nearby development projects in the vicinity of the Project site. Six projects have been identified as large projects and were specifically accounted for in the future traffic. The nearby development projects are shown in **Figure 7-10**.

Table 7-3. Nearby Development Projects

Key¹	Project	Program Description	Status
A	6 Tide Street	355,000 gsf of manufacturing and research and development space	BPDA Board Approved
B	Parcel K	304 residential units, 293 hotel rooms, 16,500 gsf of office space, 20,000 gsf of retail/restaurant space and 640 parking spaces	BPDA Board Approved
C	Marine Wharf	411 hotel rooms, 3,500 gsf of retail space, 75 parking spaces	BPDA Board Approved
D	25 Fid Kennedy	157,000 gsf of light industrial space, 6 loading areas, 10 loading docks, and 30 parking spaces	BPDA Board Approved
E	Stavis Seafood	210,000 gsf of light industrial space for seafood processing, marine warehousing and support offices, 150 parking spaces	BPDA Board Approved
F	Parcel Q1	221,600 gsf of office space, 8,400 gsf ground floor retail, and 150 parking spaces	BPDA Board Approved

¹ Referenced to **Figure 7-10**.



Figure 7-10.
Nearby Development Projects

7.4.3 Proposed Infrastructure Improvements

A review of planned improvements to roadway, transit, bicycle, and pedestrian facilities was conducted to determine if there are any nearby improvement projects. Based on this review, three new roadways construction projects will border the northern, eastern, and western edges of the Project site. As part of the overall development within MMT, Shore Road will be built as an extension of Seafood Way to the northwest of the Project site and will follow an east-west alignment the northern edge of the Project site. Tide Street will be extended along the western edge of the Project site, following its current northeast-southwest alignment between Fid Kennedy Avenue to the south and Shore Road to the north. Bollard Way will be extended along the eastern edge of the Project site, following a northeast-southwest alignment between Fid Kennedy Avenue to the south and Shore Road to the north.

7.4.4 No-Build (2025) Condition Traffic Volumes

The one-half percent per year annual growth rate was applied to the Existing (2018) Condition traffic volumes, then the traffic volumes associated with the background development projects were added to develop the No-Build (2025) Condition traffic volumes. The No-Build (2025) weekday a.m. and p.m. peak hour traffic volumes are shown on **Figure 7-11** and **Figure 7-12**, respectively.

7.5 Build (2025) Condition

The Parcel 6 site is currently vacant and the Project will include construction of three buildings, each on its own sub-parcel, as shown on the site plan in **Figure 7-13**. The buildings on Parcel 6A and Parcel 6B will be leased primarily to seafood processing and cold storage tenants and will have adjacent truck loading bays.

7.5.1 Site Access and Circulation

As shown in **Figure 7-13**, truck and automobile access to the loading areas and surface parking lots adjacent to Sub-Parcel 6A and Sub-Parcel 6B will be provided via Tide Street Extension, Bollard Way, and Shore Road. Vehicle access to the garage on Sub-Parcel 6C will be provided via Fid Kennedy Avenue to the south of the Project site. Vehicle access to the surface parking areas on Sub-Parcel 6C will also be provided along Fid Kennedy Avenue and Bollard Way.

7.5.2 Parking

A total of 186 surface parking spaces and 74 garage parking spaces, primarily for employees and visitors, will be provided on the three sub-parcels. Sub-Parcel 6C will also include a 280 space parking garage with ground floor space for an over-the-counter seafood shop and ILA meeting hall. Off-street truck loading bays adjacent to the buildings on Sub-Parcel 6A and Sub-Parcel 6B will serve truck activity associated with the Parcel 6 businesses and marine uses.

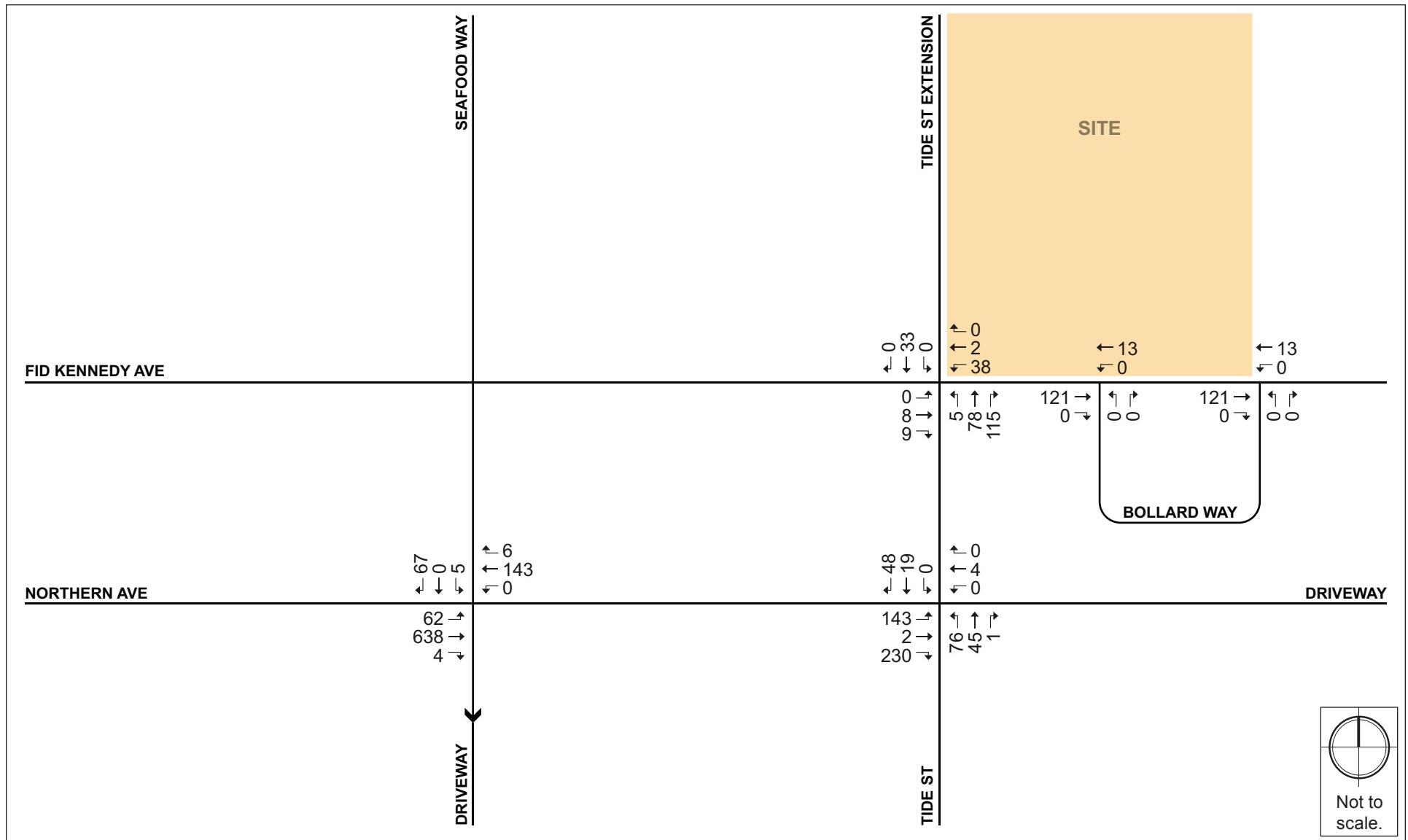


Figure 7-11.
No-Build (2025) Condition Traffic Volumes, Weekday a.m. Peak Hour

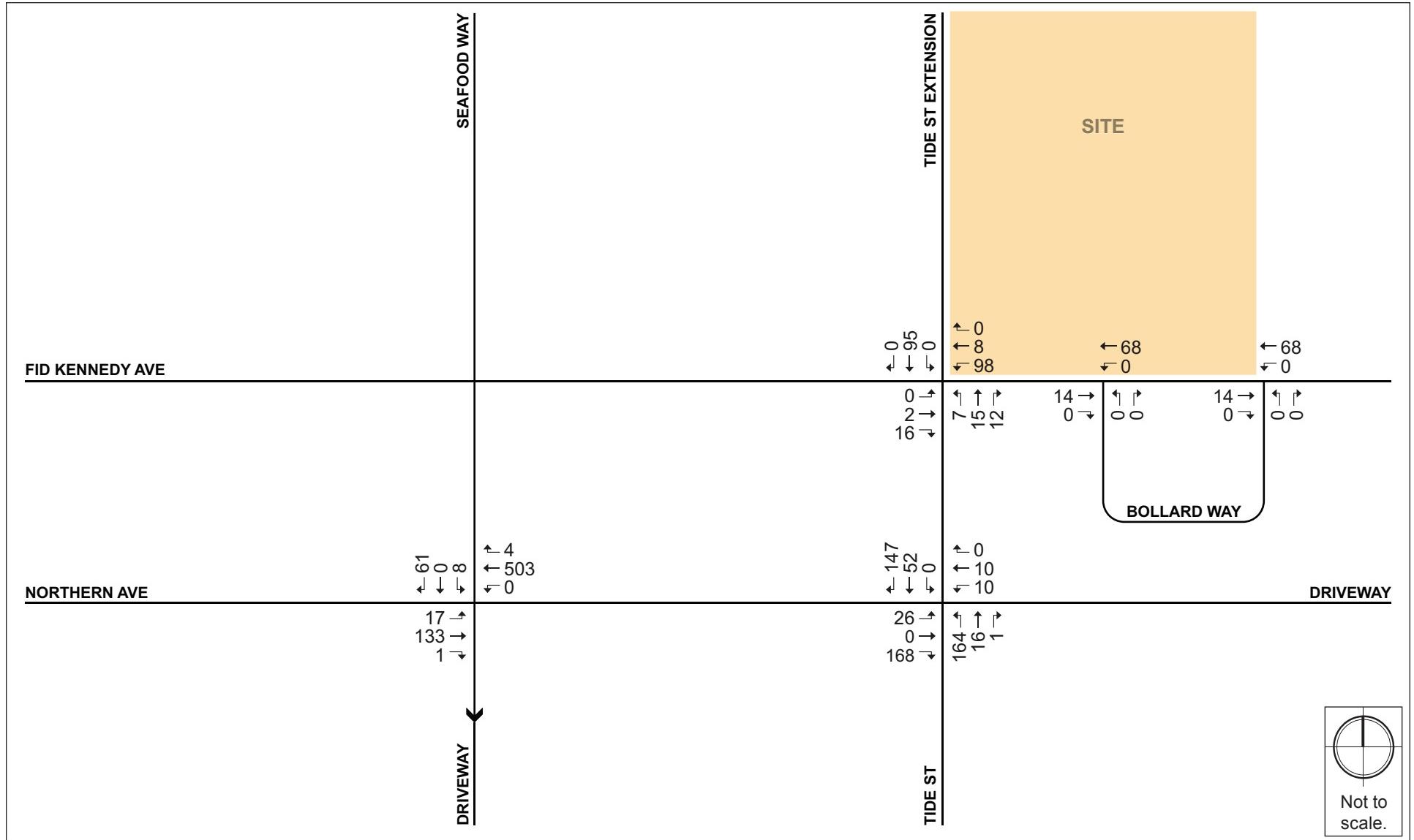


Figure 7-12.
No-Build (2025) Condition Traffic Volumes, Weekday p.m. Peak Hour

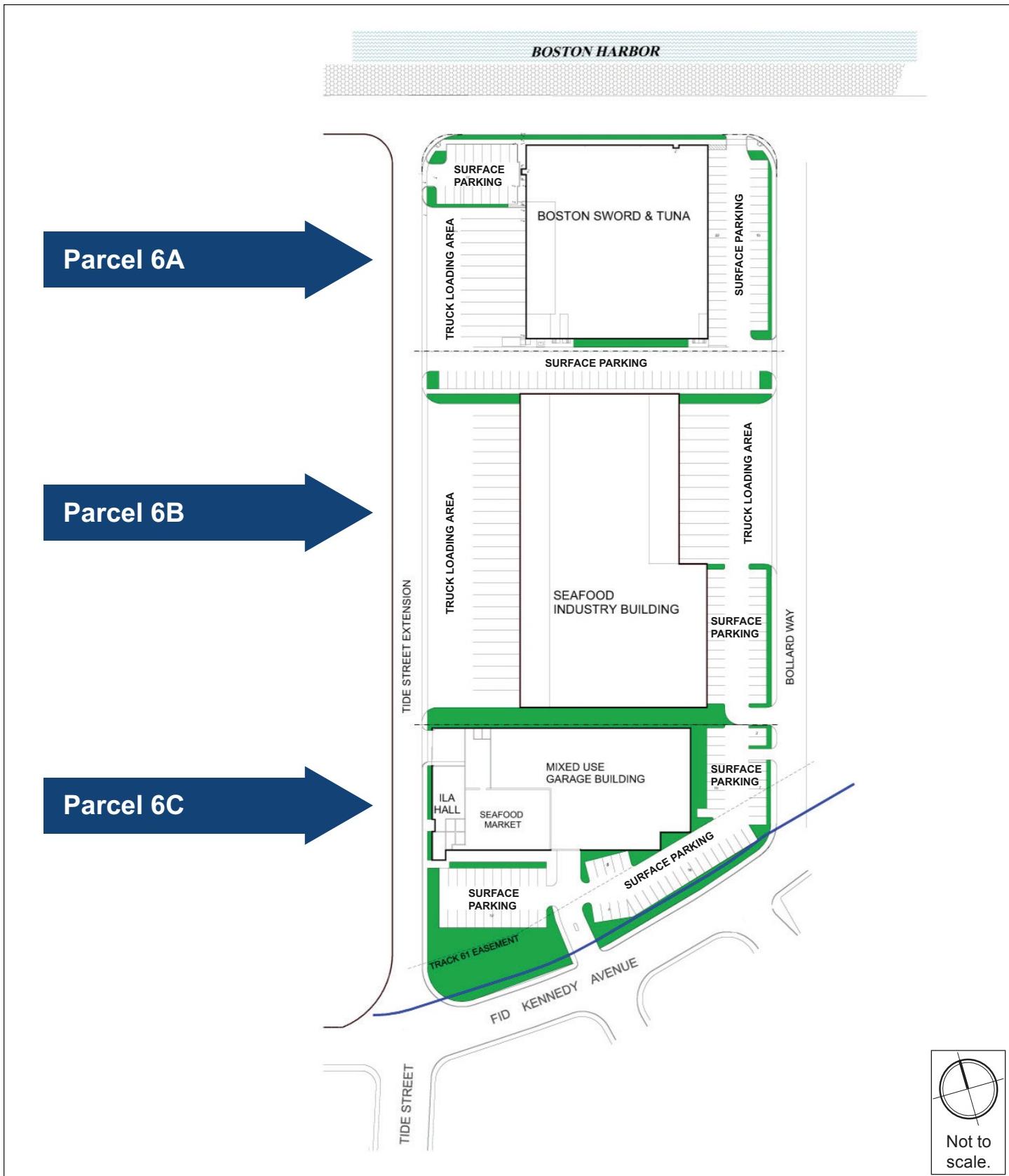


Figure 7-13.
Site Plan

The garage is intended to serve employees and visitors of MMT businesses, and other maritime industrial users.. Access control policies, such as a parking pass, will ensure that only designated users park at the garage.

The location of the garage was the result of many operational and design considerations. The odd shape of Sub-Parcel 6C would yield an inefficient site for a seafood processing or cold storage facility. The location of access to the parking garage on Fid Kennedy Avenue is intended to provide convenient, visible access for all users of the garage, while minimizing conflicts with the truck maneuvers on Tide Street Extension and Bollard Way.

In assessing the parking needs associated with the seafood processing industry, several factors make Parcel 6 and the adjoining MMT parcels unique compared to other businesses in the RLFMP and the larger South Boston Waterfront area:

- Because workers in seafood processing start work as early as 4:00 or 5:00 a.m., the use of transit services is not an option and most employees must travel via private automobile.
- Continued efficiencies in seafood processing have resulted in an increased demand for employees and an increased density of employees.
- Many industrial employees used to live in neighborhoods close to the RLFMP, but as housing costs have increased, employees have moved further out from the City, reducing the opportunities to walk or carpool to the waterfront.
- A meeting hall for the International Longshoremen's Association (ILA) will be located in the ground floor of Sub-Parcel 6C parking garage and provide a gathering place for ILA workers prior to receiving daily assignments within the RLFMP. Although the meeting hall is a modest size, at 2,500 sf, sixty surface parking spaces are required to serve the ILA daily demand.

Combined, these factors result in a parking demand of approximately 260 spaces for all of Parcel 6. This demand will be served by 186 surface spaces on the three sub-parcels and by 74 spaces within the 280-space garage on sub-parcel 6C. While the garage will serve some of the demand from Parcel 6 uses, it will also serve parking demands from other adjacent MMT parcels that do not (or will not in the future) have adequate parking supply to serve the continuing growth of maritime businesses in the MMT.

Table 7-4 shows the existing parking supply and future parking supply on Parcel 6.

Table 7-4. Existing and Future Parking Supply

Characteristic	Parcel 6			
	Sub-Parcel 6A	Sub-Parcel 6B	Sub-Parcel 6C	Total
Future Land use	48,070 sf Seafood processing	67,000 sf Seafood Processing	7,500 sf ILA/Retail Seafood Market	122,570 sf
Existing Parking Supply (spaces)	0	0	0	0
Future Parking Supply				
Surface spaces	57	63	66	186
<u>Garage spaces</u>	<u>0</u>	<u>0</u>	<u>280</u>	<u>280</u>
Total spaces	57	63	346	466

As shown in Table 7-4, the combined Project site will contain 186 surface parking spaces and 280 spaces in the parking garage on Sub-Parcel 6C. The parking demands for Parcel 6 and adjacent parcels are described in more detail below:

- Sub-Parcel 6A – The associated parking demand generated by the seafood processing business on this sub-parcel is estimated at 97 spaces, primarily for employees. With a planned on-site supply of 57 surface spaces, the remaining demand (40 vehicles) will use the garage on Sub-Parcel 6C.
- Sub-Parcel 6B – The associated parking demand generated by the seafood processing businesses on this sub-parcel is estimated at 83 spaces, primarily for employees. With a planned on-site supply of 63 surface spaces, the remaining demand (20 vehicles) will use the garage at Sub-Parcel 6C.
- Sub-Parcel 6C – The associated parking demand generated by the land uses on this sub-parcel is estimated at 66 spaces, with 6 spaces for the seafood market and 60 spaces for the ILA. With a planned on-site supply of about 66 surface spaces on Sub-Parcel 6C, the entire demand of 66 spaces can be met by the surface parking.
- Overall, the activity associated with the land uses on Parcel 6 will generate a demand for 246 parking spaces (97 from Sub-Parcel A, 83 from Sub-Parcel B, and 66 from Sub-Parcel C). This demand will be met by the 186 surface spaces and use of about 60 spaces in the garage on Sub-Parcel 6C.
- In addition to the 66 surface parking spaces, Sub-Parcel 6C will also contain a 280 space parking garage. The parking garage, while serving about 60 vehicles from Parcel 6, will primarily serve parking demands from adjacent existing and future maritime-related businesses. These adjacent businesses on other MMT parcels include.

- Parcel 1, Legal Sea Foods, with 75,000 sf existing space and 69 surface parking spaces;
- Parcel 2, 8 Seafood Way, with 65,000 sf existing space and 100 surface parking spaces;
- Parcel 4, Cape Cod Shellfish with 48,000 sf future space and proposed 70 surface parking spaces; and
- Parcel 5, Stavis Seafoods, with 209,490 sf of future warehouse, office/industrial space and 150 proposed surface parking spaces.

When all parcels are built-out, Parcel 1, Parcel 2, Parcel 4, and Parcel 5 will collectively have on-site surface parking for about 389 vehicles. These surface spaces, however, will not be sufficient to meet the parking demands of the approximate 397,490 square feet of maritime development on these parcels. The estimated un-met parking demand from these parcels is about 230 vehicles. To meet this demand, the garage on Sub-Parcel 6C will provide about 220 spaces to support the parking demand from these parcels. (In total, the garage will have about 280 spaces, with about 60 allocated to Parcel 6 and the remainder allocated to adjacent parcels.)

BTD has set parking space goals and guidelines throughout the City to establish the parking supply to be provided with new developments. The BTD's maximum parking goals in the South Boston Waterfront neighborhood is 0.7 parking spaces per 1,000 square feet for office/non-residential space. The resulting parking ratio from is about 1.64 spaces/1,000 sf, when accounting for existing and future square feet on Parcel 6, Parcel 1, Parcel 2, Parcel 4 and Parcel 5 (855 spaces/ 520,060 sf = 1.64).

While this ratio is higher than the recommended BTD ratio, the desire to maintain a robust seafood industry in Boston and locate maritime uses in the RLFMP needs to be supported by providing adequate parking for those maritime industrial employees whose shifts start at 4AM, when no public transportation is available.

7.5.3 Loading and Service Accommodations

Seafood processing and cold storage facilities generate a high number of truck trips related to both deliveries and shipments whereas other commercial land uses primarily generate more frequent deliveries from smaller trucks.

As shown in **Figure 7-13**, loading and service operations for Sub-Parcel 6A will occur from Tide Street along the western side of the building. Loading and service operations for Sub-Parcel 6B will occur from both Bollard Way and Tide Street Extension along the eastern and western sides of the building, respectively. Loading for Sub-Parcel 6C will occur from Tide Street Extension, adjacent to the ILA meeting hall.

7.5.4 *Bicycle Accommodations*

BTD has established guidelines requiring projects subject to Transportation Access Plan Agreements to provide secure bicycle parking for employees, as well as short-term bicycle racks for visitors. Based on BTD guidelines, the private company located on each of the industrial park locations on Parcel 6 Sub-parcels will required to supply secure bicycle parking/storage spaces for its employees (0.3 per 1,000 sf of development) within their Sub-parcel. Showers and changing rooms will be available to employees.

For the mixed-use parking garage, the BTD guidelines will also provide a reference for the supply of bicycle racks for public use.

7.5.5 *Trip Generation Methodology*

Determining the future trip generation of a Project is a complex, multi-step process that produces an estimate of vehicle trips, transit trips, walk trips, and bicycle trips associated with a proposed development and a specific land use program. A project's location, proximity to different travel modes, and specific operational characteristics determine how people will travel to and from a project site.

While it is standard practice to estimate the number of new trips from a project based on trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*⁵, the ITE data for the Project's land use is incomplete. To supplement the ITE method, the study team obtained trip data from Boston Sword and Tuna (a proposed tenant at Parcel 6) and developed a project specific trip generation. The sections below provide a comparison of the two methodologies and identifies one for the Build Conditions analysis.

ITE Trip Generation Rates

ITE provides data to estimate the total number of unadjusted vehicular trips associated with the Project. In an urban setting well-served by transit, adjustments are necessary to account for other travel mode shares such as walking, bicycling, and transit. Although the ITE Trip Generation Manual outlines vehicular trip rates for a wide range of land use codes (LUCs), it does not provide information relating specifically to seafood processing or cold storage facilities.

Below is a description of the ITE land use code (LUC) deemed most appropriate, among limited choices, for the Project:

Land Use Code 110 – General Light Industrial. A light industrial facility is a freestanding facility devoted to a single use. The facility has an emphasis on activities other than manufacturing and typically has minimal office space. Typical light industrial activities include

⁵ Trip Generation Manual, 10th Edition; Institute of Transportation Engineers; Washington, D.C.; 2017.

printing, material testing, and assembly of data processing equipment. The trip generation estimates are based on average vehicular rates per 1,000 square feet.

Land Use Code 820 – Shopping Center (Retail Market). Of the available land use codes within ITE, the Shopping Center land use code was chosen as best suited for the proposed over-the-counter seafood shop, which will serve local workers and the public. The trip generation estimates are based on average vehicular rates per 1,000 square feet.

The unadjusted vehicular trips estimated for the land uses above were converted to person trips by using vehicle occupancy rates (VOR) published by the Federal Highway Administration (FHWA). Travel mode shares from the South Boston Waterfront Sustainable Transportation Plan, as shown in **Table 7-5**, were applied to the person trips to estimate vehicle, transit, and walking trips.

Table 7-5. Travel Mode Shares and Vehicle Occupancy Rate

Source	Walk/Bicycle Share	Transit Share	Vehicle Share	Private Vehicle Occupancy Rate (VOR) ¹
South Boston Waterfront Sustainable Transportation Plan	27%	27%	46%	1.13

1 2009 National Household Travel Survey.

Project Specific Trip Generation

Because the ITE land use codes do not specifically reflect the Project's proposed land uses, an alternative trip generation was developed based on data from Boston Sword and Tuna (BST) at their existing 30,000 facility at 8 Seafood Way. Because the BST proposed facility at Parcel 6 would be larger at 48,000 sf, the data was increased proportionally to estimate the Project's vehicle trips. Based on the data:

Sub-Parcel 6A is expected to generate approximately 128 truck trips (64 in and 64 out) on a typical weekday between the hours of 6:00 a.m. and 2:00 p.m.

Sub-Parcel 6B is expected to generate approximately 178 truck trips (89 in and 89 out) on a typical weekday between the hours of 6:00 a.m. and 4:00 p.m.

Parcel 6 as a whole is expected to generate approximately 520 auto trips between the hours of 4:00 a.m. and 4:00 p.m. (260 in and 260 out).

Parcel 6 as a whole is expected to generate approximately 826 vehicle trips (trucks and autos) between the hours of 4:00 a.m. and 4:00 p.m. (413 in and 413 out).

The parking activity generated by the adjacent MMT parcels (not Parcel 6) in the garage is expected to generate an additional 412 auto trips (206 in and 206 out) on a daily basis.

Trip Generation Summary

The vehicle trip generation estimates resulting from each methodology are shown in **Table 7-6**.

Table 7-6. Vehicle Trip Generation Comparison

Methodology	Daily	a.m. Peak Hour	p.m. Peak Hour
ITE			
In	174	35	8
<u>Out</u>	<u>174</u>	<u>4</u>	<u>34</u>
Total	348	41	42
Project Specific			
In	413	21	15
<u>Out</u>	<u>413</u>	<u>20</u>	<u>16</u>
Total	826	41	31

¹ These vehicle trips include Parcel 6 land uses only and do not include the garage trips associated with adjacent MMT parcels.

Given that the project specific trip generation is higher for daily trips and similar for the peak hours, these vehicle trips were adopted for the Build Condition analysis. The detailed trip generation calculations for each method are provided in **Appendix B**.

Combining the trips generated by the Parcel 6 land uses and the trips at the garage associated with the adjacent MMT parcels, the site's total daily vehicle trips are estimated to be 1,238 daily trips, (619 in and 619 out), 41 a.m. peak hour trips (21 in and 20 out), and 31 p.m. peak hour trips (15 in and 16 out). Note that the vehicle trips generated during the standard peak hours are all truck trips. Because employees arrive before the observed a.m. peak hour of 8:00 – 9:00 a.m. and depart prior to the observed p.m. peak hour of 4:30 – 5:30 p.m., they do not generate vehicle trips during these peak hours.

7.5.6 Trip Distribution

The trip distribution identifies the various travel paths for vehicles arriving and leaving the Project site. Trip distribution patterns for the Project were based on BTD's origin-destination data for Area 13 – South Boston and trip distribution patterns presented in traffic studies for nearby projects. The trip distribution patterns for the Project are shown in **Figure 7-14**.

7.5.7 Build (2025) Traffic Volumes

The vehicle trips were distributed through the study area based on the trip distribution shown in **Figure 7-14** to each sub-parcel. The vehicle and truck trips associated with Sub-Parcel 6A were distributed through the Tide Street Extension to the loading area and surface lots accompanying

the building. The truck trips associated with Sub-Parcel 6B were distributed through the Tide Street Extension to the loading area accompanying the building while the vehicle trips associated with the sub-parcel were distributed through Bollard Way to the surface parking lots accompanying the building. The vehicle trips associated with Sub-Parcel 6C were distributed through the Project driveway on Fid Kennedy Avenue. The project-generated trips for the weekday a.m. and p.m. peak hours are shown in **Figure 7-15** and **Figure 7-16**, respectively. The project-generated trips were added to the No-Build (2025) Condition vehicular traffic volumes to develop the Build (2025) Condition vehicular traffic volumes.

The Build (2025) weekday a.m. and p.m. peak hour traffic volumes are shown on **Figure 7-17** and **Figure 7-18**, respectively.



Figure 7-14.
Trip Distribution, a.m. Peak Hour



Figure 7-15.
Trip Distribution, p.m. Peak Hour

In	21
Out	(20)

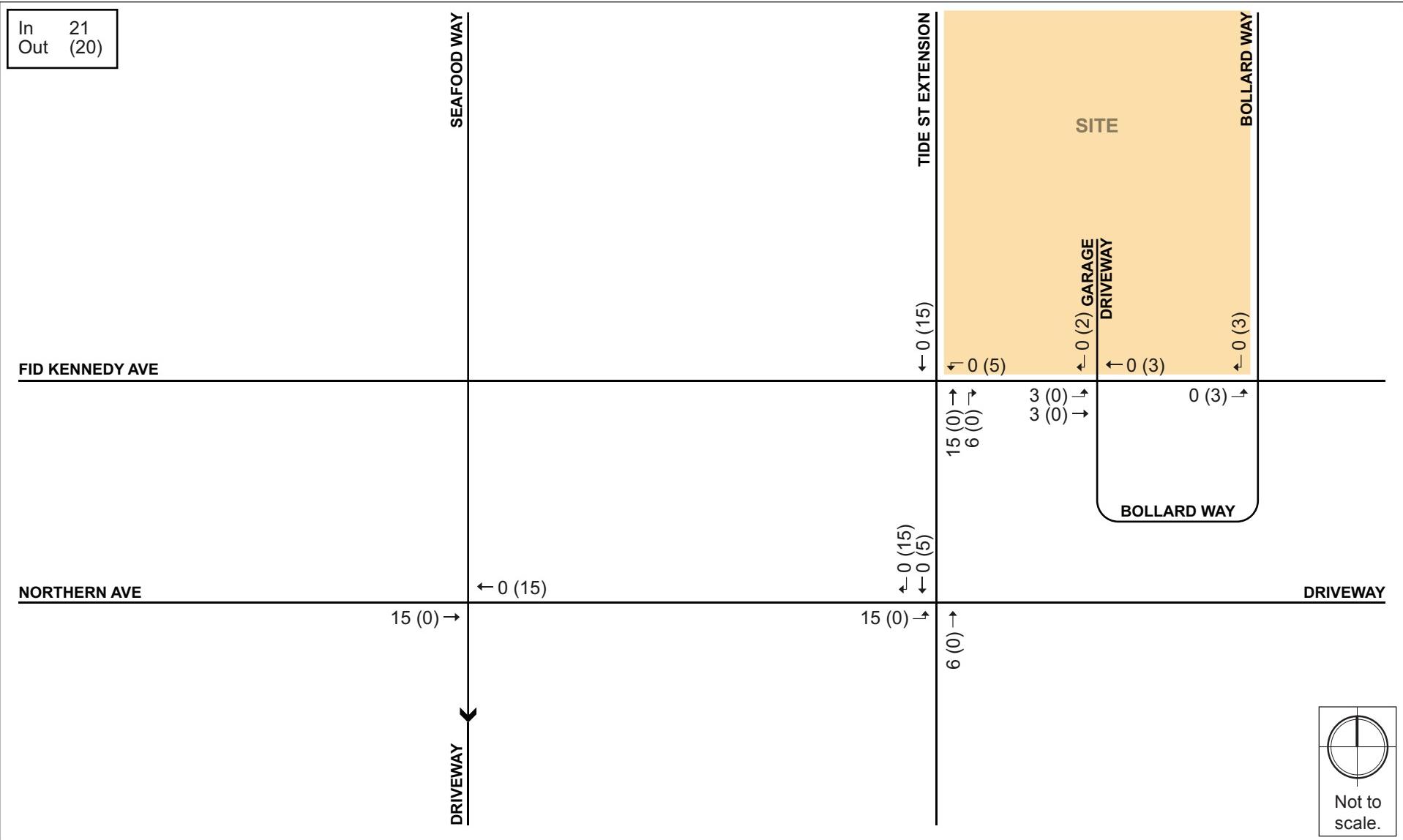


Figure 7-16.
Project-generated Vehicle Trips, Weekday a.m. Peak Hour

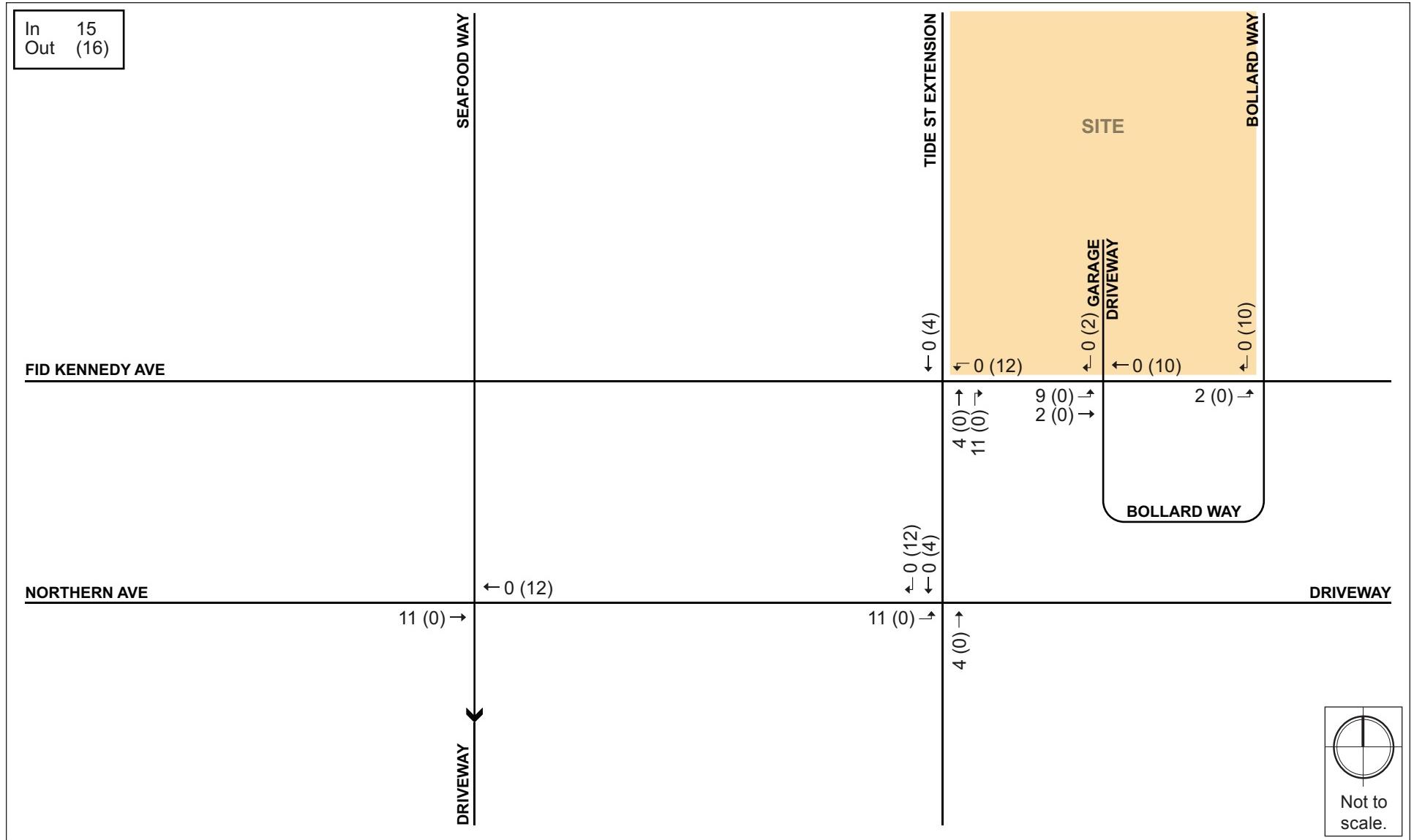


Figure 7-17.
Project-generated Vehicle Trips, Weekday p.m. Peak Hour

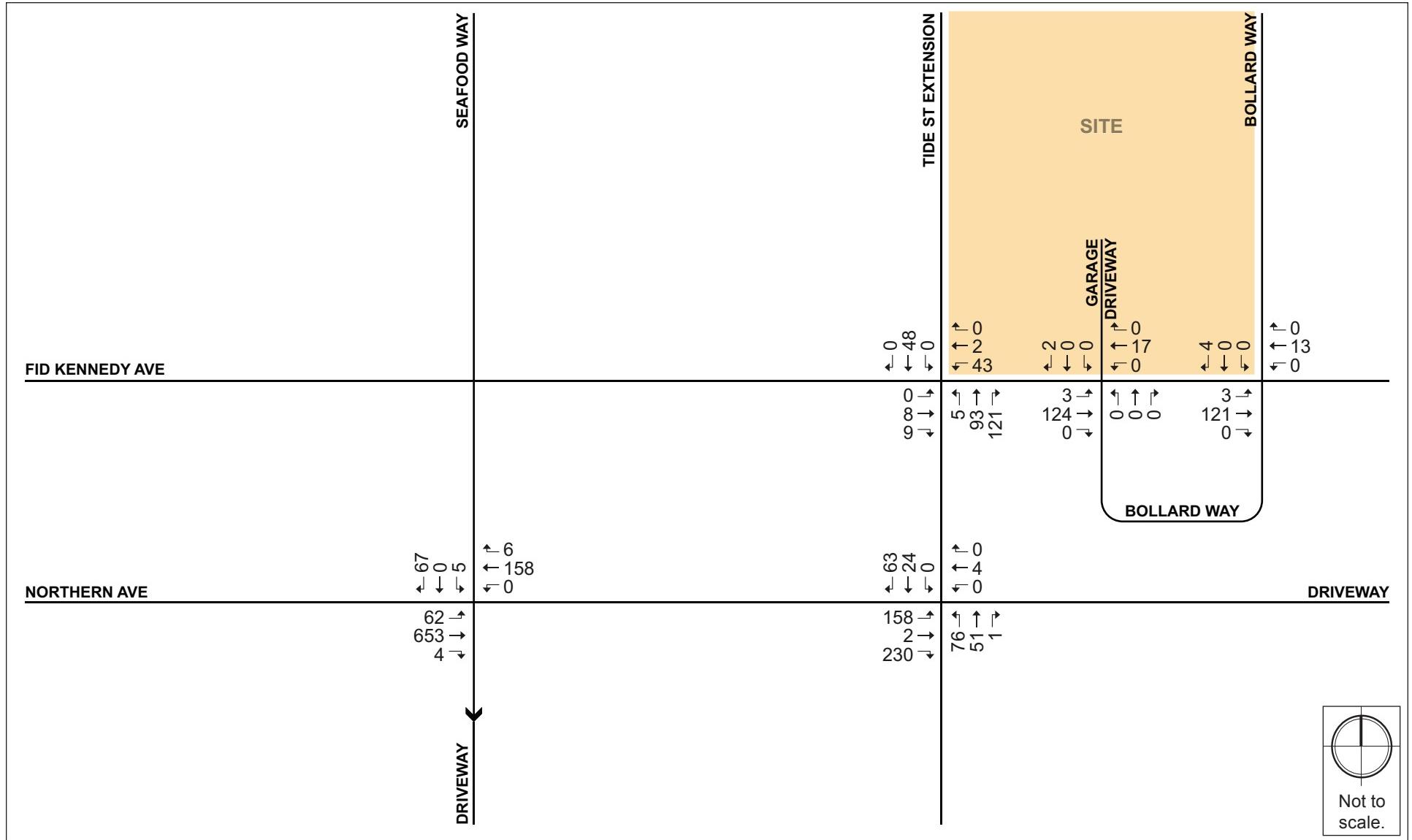


Figure 7-18.
Build (2025) Condition Traffic Volumes, Weekday a.m. Peak Hour

7.6 Traffic Capacity Analysis

Trafficware's Synchro (version 9) software package was used to calculate average delay and associated LOS at the study area intersections. This software is based on the traffic operational analysis methodology of the Transportation Research Board's 2010 Highway Capacity Manual (HCM).

LOS designations are based on average delay per vehicle for all vehicles entering an intersection. **Table 7-6** displays the intersection LOS criteria. LOS A indicates the most favorable condition, with minimum traffic delay, while LOS F represents the worst condition, with significant traffic delay. LOS D or better is typically considered acceptable in an urban area, such as the South Boston Waterfront. However, LOS E or F is often typical for a stop controlled minor street that intersects a major roadway.

Table 7-7. Vehicle Level of Service Criteria

Level of Service	Average Stopped Delay (sec/veh)	
	Signalized Intersection	Unsignalized Intersection
A	≤10	≤10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

Source: 2010 Highway Capacity Manual, Transportation Research Board.

In addition to delay and LOS, the operational capacity and vehicular queues are calculated and used to further quantify traffic operations at intersections. The volume-to-capacity (v/c) ratio is a measure of congestion at an intersection approach. A v/c ratio below one indicates that the intersection approach has adequate capacity to process the arriving traffic volumes over the course of an hour. A v/c ratio of one or greater indicates that the traffic volume on the intersection approach exceeds capacity.

The 50th percentile queue length, measured in feet, represents the maximum queue length during a cycle of the traffic signal with typical (or median) entering traffic volumes. The 95th percentile queue length, measured in feet, represents the farthest extent of the vehicle queue (to the last stopped vehicle) upstream from the stop line during five percent of all signal cycles. The 95th percentile queue will not be seen during each cycle. The queue would be this long only five percent of the time and would typically not occur during off-peak hours. Since volumes fluctuate throughout the hour, the 95th percentile queue represents what can be considered a "worst case" scenario. Queues at the intersection are generally below the 95th percentile queue throughout the course of the peak hour. It is also unlikely that the 95th percentile queues for each approach to the intersection will occur simultaneously. Note that 50th percentile queues are not reported for unsignalized, all-way stop locations.

Table 7-7 and **Table 7-8** present, respectively, the a.m. and p.m. peak hour capacity analysis for the study area intersections under each analysis condition: Existing (2018) Condition, No-Build (2025) Condition,

and the Build (2025) Condition. The detailed analysis sheets are provided in Appendix **B**. The sections below present results for each condition.

7.6.1 Existing (2018) Condition Traffic Operations Analysis

The study area intersections and approaches operate below capacity and at acceptable levels of delay (LOS D or better) under the Existing (2018) Condition. There are no locations where movements are at capacity or operating at high delays (LOS E or LOS F).

7.6.2 No-Build (2025) Condition Traffic Operations Analysis

The study area intersections and approaches operate below capacity and at acceptable levels of delay (LOS D or better) under the No-Build (2025) Condition. There are no locations where movements decrease to be at capacity or operating at high delays (LOS E or LOS F).

7.6.3 Build (2025) Condition Traffic Operations Analysis

With the increase in intersection volumes due to the Project, the study area intersections and approaches would continue to operate below capacity and at acceptable levels of delay (LOS D or better) under the Build (2025) Condition. There are no locations where movements decrease to be at capacity or operating at high delays (LOS E or LOS F).

Table 7-8. Capacity Analysis Summary, a.m. Peak Hour

Intersection/Approach	Existing (2018) Condition					No-Build (2025) Condition					Build (2025) Condition				
	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th
Fid Kennedy Avenue/Tide Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave EB Thru Right	A	7.2	0.03	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave EB Left Thru Right	-	-	-	-	-	A	7.8	0.04	-	-	A	7.7	0.04	-	-
Fid Kennedy Ave WB Left Thru	A	7.9	0.07	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave WB Left Thru Right	-	-	-	-	-	A	8.7	0.12	-	-	A	9.4	0.14	-	-
Tide St NB Left Right	A	7.0	0.11	-	-	-	-	-	-	-	-	-	-	-	-
Tide St NB Left Thru Right	-	-	-	-	-	A	7.9	0.23	-	-	A	8.7	0.08	-	-
Tide St SB Left Thru Right	-	-	-	-	-	A	8.2	0.15	-	-	A	8.4	0.17	-	-
Northern Avenue/Tide Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Ave EB Left Thru Right	A	8.9	0.33	-	-	B	12.5	0.55	-	-	B	13.7	0.59	-	-
Driveway WB Left Thru Right	A	8.2	0.01	-	-	A	8.7	0.01	-	-	A	9.0	0.01	-	-
Tide St NB Left Thru Right	A	9.3	0.17	-	-	B	10.6	0.25	-	-	B	11.0	0.27	-	-
Tide St SB Left Thru Right	A	8.0	0.07	-	-	A	9.0	0.16	-	-	A	9.5	0.22	-	-
Northern Avenue/Seafood Way	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Ave EB Left Thru Right		1.3	0.05	-	4		1.3	0.05	-	4		1.3	0.05	-	4
Northern Ave WB Left Thru Right		0.0	0.00	-	0		0.0	0.00	-	0		0.0	0.00	-	0
Seafood Way SB Left Thru Right	B	10.3	0.11	-	9	B	11.1	0.13	-	11	B	11.3	0.13	-	11
Fid Kennedy Ave/Bollard Way/Garage Driveway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave EB Left Thru Right	-	-	-	-	-	-	-	-	-	-		0.2	0.00	-	0
Fid Kennedy Ave WB Left Thru Right	-	-	-	-	-	-	-	-	-	-		0.0	0.00	-	0
Bollard Way NB Left Thru Right	-	-	-	-	-	-	-	-	-	-	A	0.0	0.00	-	0
Driveway Left Thru Right	-	-	-	-	-	-	-	-	-	-	A	8.4	0.00	-	0

MMT PARCEL 6, SO. BOSTON

Intersection/Approach	Existing (2018) Condition					No-Build (2025) Condition					Build (2025) Condition				
	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th
Fid Kennedy Avenue/Bollard Way	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave EB Left Thru Right	-	-	-	-	-	-	-	-	-	-		0.2	0.00	-	0
Fid Kennedy Ave WB Left Thru Right	-	-	-	-	-	-	-	-	-	-		0.0	0.00	-	0
Bollard Way NB Left Thru Right	-	-	-	-	-	-	-	-	-	-	A	0.0	0.00	-	0
Bollard Way SB Left Thru Right	-	-	-	-	-	-	-	-	-	-	A	9.3	0.00	-	0

Table 7-9. Capacity Analysis Summary, p.m. Peak Hour

Intersection/Approach	Existing (2018) Condition					No-Build (2025) Condition					Build (2025) Condition				
	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th
Fid Kennedy Avenue/Tide Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave EB Thru Right	A	6.6	0.03	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave EB Left Thru Right	-	-	-	-	-	A	7.0	0.04	-	-	A	7.1	0.04	-	-
Fid Kennedy Ave WB Left Thru	A	7.6	0.07	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave WB Left Thru Right	-	-	-	-	-	A	8.6	0.18	-	-	A	9.0	0.21	-	-
Tide St NB Left Right	A	7.5	0.02	-	-	-	-	-	-	-	-	-	-	-	-
Tide St NB Left Thru Right	-	-	-	-	-	A	7.8	0.03	-	-	A	7.4	0.05	-	-
Tide St SB Left Thru Right	-	-	-	-	-	A	8.1	0.15	-	-	A	8.4	0.14	-	-
Northern Avenue/Tide Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Ave EB Left Thru Right	A	8.8	0.19	-	-	B	11.6	0.38	-	-	B	12.3	0.41	-	-
Driveway WB Left Thru Right	A	8.2	0.03	-	-	A	9.1	0.04	-	-	A	9.2	0.04	-	-
Tide St NB Left Thru Right	A	9.4	0.25	-	-	B	11.1	0.34	-	-	B	11.6	0.35	-	-
Tide St SB Left Thru Right	A	7.6	0.08	-	-	A	9.8	0.32	-	-	B	10.4	0.35	-	-
Northern Avenue/Seafood Way	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Ave EB Left Thru Right		1.2	0.02	-	4		1.2	0.02	-	2		1.2	0.02	-	2
Northern Ave WB Left Thru Right		0.0	0.00	-	0		0.0	0.00	-	0		0.0	0.00	-	0
Seafood Way SB Left Thru Right	B	12.8	0.16	-	9	C	15.5	0.21	-	20	C	15.8	0.22	-	21
Fid Kennedy Ave/Bollard Way/Garage Driveway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave EB Left Thru Right	-	-	-	-	-	-	-	-	-	-		2.8	0.01	-	0
Fid Kennedy Ave WB Left Thru Right	-	-	-	-	-	-	-	-	-	-		0.0	0.00	-	0
Bollard Way NB Left Thru Right	-	-	-	-	-	-	-	-	-	-	A	0.0	0.00	-	0
Driveway Left Thru Right	-	-	-	-	-	-	-	-	-	-	A	8.7	0.00	-	0

Intersection/Approach	Existing (2018) Condition					No-Build (2025) Condition					Build (2025) Condition				
	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th	LOS	Delay (s)	V/C Ratio	Queue (ft) 50th	Queue (ft) 95th
Fid Kennedy Avenue/Bollard Way	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fid Kennedy Ave EB Left Thru Right	-	-	-	-	-	-	-	-	-	-	-	1.0	0.00	-	0
Fid Kennedy Ave WB Left Thru Right	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	-	0
Bollard Way NB Left Thru Right	-	-	-	-	-	-	-	-	-	-	A	0.0	0.00	-	0
Bollard Way SB Left Thru Right	-	-	-	-	-	-	-	-	-	-	A	9.7	0.01	-	1

7.7 Transportation Demand Management

The Proponent is encouraging Sub-Parcel client Boston Sword & Tuna to implement Transportation Demand Management (TDM) measures to minimize automobile usage and Project related traffic impacts. TDM will be facilitated by the nature of the Sub-parcel development (which does not generate significant peak hour trips). On-site management for each private company is anticipated to keep a supply of transit information (schedules, maps, and fare information) to be made available to the employees of the company. The Proponent will work with the City to develop a TDM program appropriate to the Project and consistent with its level of impact.

The TDM measures for the Project may include but are not limited to the following:

Transportation Coordinator: The Proponent will encourage the designation of a transportation coordinator to oversee transportation issues, including loading, service, and deliveries, at each building and will work with tenants to raise awareness of public transportation, bicycling, walking, car sharing, and bike sharing opportunities in the area.

Orientation Packets: The Proponent will be encouraged to provide orientation packets to new tenants containing information on available transportation choices, including transit routes/schedules and nearby vehicle sharing and bicycle sharing locations.

Electric Vehicle Charging: The Proponent intends its development of Sub-Parcel 6C to include electric vehicle charging station(s) within the garage.

7.8 Transportation Mitigation Measures

While the traffic impacts associated with the new trips are minimal, the Proponent will continue to work with the City of Boston to create a Project that efficiently serves vehicle trips, improves the pedestrian environment, and encourages transit and bicycle use. As part of the Project, the Proponent will bring all abutting sidewalks and pedestrian ramps to the City of Boston standards in accordance with the Boston Complete Streets design guidelines. This will include the reconstruction and widening of the sidewalks where possible, the installation of new, accessible ramps, improvements to street lighting where necessary, planting of street trees, and providing bicycle storage racks surrounding the site, if appropriate.

The Proponent is responsible for preparation of the voluntary Transportation Access Plan Agreement (TAPA), a formal legal agreement between the Proponent and the BTD. The TAPA formalizes the findings of the transportation study, mitigation commitments, elements of access and physical design, travel demand management measures, and any other responsibilities that are agreed to by both the Proponent and the BTD. Because the TAPA must incorporate the results of the technical analysis, it must be executed after these other processes have been completed. The proposed measures listed above and any additional transportation improvements to be undertaken as part of this Project will be defined and documented in the TAPA.

7.9 Evaluation of Short-Term Construction Impacts

Most construction activities will be accommodated within the current site boundaries. Details of the overall construction schedule, working hours, number of construction workers, worker transportation and parking, number of construction vehicles, and routes will be addressed in detail in a Construction Management Plan (CMP) to be filed with BTD in accordance with the City's transportation maintenance plan requirements.

To minimize transportation impacts during the construction period, the following measures will be considered for the Construction Management Plan:

- Limit construction worker parking on-site;
- Encourage worker carpooling;
- Consider a subsidy for MBTA passes for full-time employees; and
- Provide secure spaces on-site for workers' supplies and tools so they do not have to be brought to the site each day.

The Construction Management Plan is intended to be executed with the City prior to commencement of construction will document all committed measures.

8.0 COORDINATION WITH GOVERNMENTAL AGENCIES

8.1 Architectural Access Board Requirement

The Project will comply with the requirements of the Architectural Access Board, and designed to comply with the Standards of the Americans with Disabilities Act.

8.2 Massachusetts Environmental Policy Act

The Proposed Project requires state action in the form of a ground sublease from Massport. Moreover, based on information currently available, development of the Proposed Project will cross one or more review thresholds that require review by the Massachusetts Environmental Protection Act (“MEPA”) Unit of the Office of the Executive Office of Energy and Environmental Affairs. Development at the Project Site was previously subject to MEPA review of a larger project spanning the entire 29.8-acre MMT (EEA #8161/14045). Therefore, the Project Proponent plans to file an entirely new Environmental Notification Form (“ENF”) for the Proposed Project.

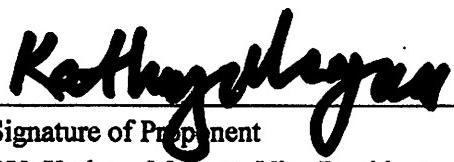
8.3 Boston Civic Design Commission

The Project is expected to exceed the 100,000 gross square feet size threshold requirement for review by the Boston Civic Design Commission.

9.0 PROJECT CERTIFICATION

This form has been circulated to the Boston Planning and Development Agency as required by Article 80 of the Boston Zoning Code.

Pilot Seafood Properties III LLC



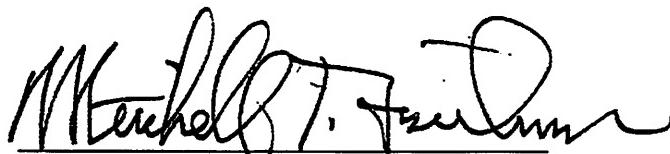
Signature of Preparer

BY: Kathryn Maynes, Vice President,
Pilot Development Partners, Inc., Manager,
Pilot Seafood Properties III LLC



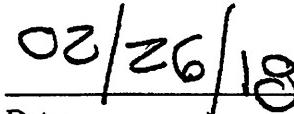
Date

Mitchell L. Fischman ("MLF") Consulting LLC



Signature of Preparer

Mitchell L. Fischman, Principal



Date

***APPENDIX A – LETTER OF INTENT (LOI) TO FILE PNF,
DECEMBER 20, 2017***

Pilot

SEAFOOD PROPERTIES III LLC

6 Pleasant St., Suite 508
Malden, MA 02148
Tel 617 542 0450

December 20, 2017

Mr. Brian P. Golden, Director
Boston Planning & Development Agency
One City Hall Plaza, 9th Floor
Boston, MA 02201-1007
Attn: Ms. Aisling Kerr, Project Manager

RE: Massport Marine Terminal (MMT) Parcel 6 Letter of Intent

Dear Director Golden:

Pilot Seafood Properties III LLC (the "Project Proponent") is pleased to submit this Letter of Intent to file a Project Notification Form initiating voluntary project review under Article 80B of the Boston Zoning Code for marine industrial seafood processing facilities and supporting mixed use garage to be located on Parcel 6 of the MMT on Fid Kennedy Avenue within the Raymond L. Flynn Marine Park in South Boston, Massachusetts (see attached **Figure 1. Project Locus**) This letter is submitted pursuant to the Mayoral Executive Order dated October 10, 2000, as amended on April 3, 2001, with respect to the development of the proposed project.

The proposed Project is in response to a February 2016 Request for Proposals from the Massachusetts Port Authority ("Massport") for the marine industrial development and utilization of the MMT with emphasis on the seafood industry. The project proponent, through related Pilot companies, has developed and assisted several other seafood industry buildings in the Flynn Marine Park, including two buildings at New Boston Seafood Center, 8 Seafood Way multi-tenant building and the Legal Sea Food's Quality Control Center.

The MMT Parcel 6 Project (the "Project") will comprise approximately 220,000 gross square-feet ("gsf") in separate facilities for two to three expanding seafood companies, as well as a mixed-use parking structure to provide much-needed parking infrastructure for marine industry not served by public transportation. Buildings will be of varying height from 30 to 44 feet. The development will provide opportunity for up to 150 permanent new marine jobs and perform to high sustainability and climate resiliency standards.

The Project will introduce medium to larger seafood companies into the existing seafood industry mix at the MMT, making full use of the land area, and proximity to the waterfront. Supporting the seafood industry's long-term stability and future in Boston, the facilities will be seafood company owned. The first of the new seafood buildings will be for Boston Sword & Tuna which has outgrown their existing space located at 8 Seafood Way. The mixed-use parking building is designed to contain a public seafood market and seafood industry multi-tenant space on the ground floor. The introduction of locally provisioned retail seafood at this location will provide a valuable

interface between the seafood industry and the public. The garage will include approximately 300 parking spaces plus additional surface parking to serve the employee needs of the proposed seafood facilities, those of the ILA, and other users within the MMT.

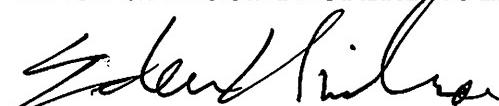
As a water-dependent marine industrial project on land leased by Massport from the City of Boston, the Project is compliant with the 1999 Boston Marine Industrial Park Master Plan, Updated 2017, and the 2005 Boston Marine Industrial Park Chapter 91 Master License. The Project Proponent does not believe that the Project requires any zoning relief.

A project permitting team has already been assembled that includes MLF Consulting LLC (permitting), Howard Stein Hudson (transportation), and Dalton & Finegold (legal) to lead the Proponent through all aspects of permitting process, which is anticipated to include the filing of an Expanded Project Notification Form with the BPDA, and an Environmental Notification Form with the Executive Office of Energy and Environmental Affairs MEPA Office.

We look forward to working with the BPDA and other City agencies on the successful completion of the voluntary Article 80B Large Project Review process for the Proposed Project.

Sincerely,

PILOT SEAFOOD PROPERTIES III, LLC



Eden Milroy, President, Pilot Development Partners Inc., Manager

Attached: Figure 1. Project Locus - Pardel 6

cc. Andrew Hargens, Massport
Aisling Kerr, BPDA
Jonathan Greeley, BPDA
Richard McGuinness, BPDA
Jared Eigerman, Dalton & Finegold LLP
Mitch Fischman, MLF Consulting
Elizabeth Peart, Howard Stein Hudson

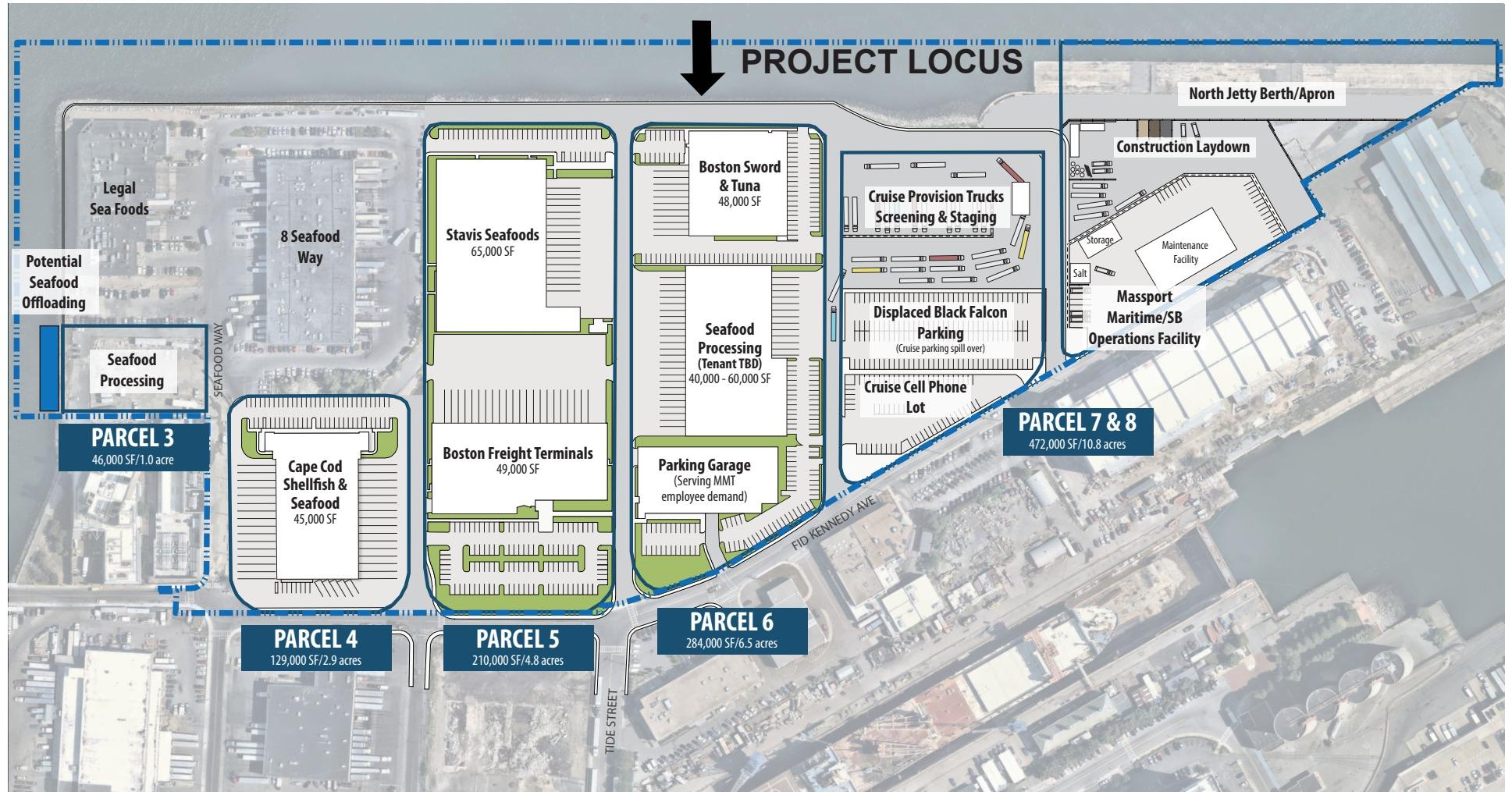


Figure 1. Project Locus- Parcel 6

Letter of Intent

APPENDIX B – TRANSPORTATION APPENDIX

APPENDIX B – TRANSPORTATION APPENDIX

B1 – Detailed Traffic Counts

B2 – MassDOT Weekday Seasonal Adjustment Factors

B3 – Detailed Trip Generation Calculations

B4 - Synchro Analysis

APPENDIX B1 – Detailed Traffic Counts

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/3/2018

Page No : 1

Groups Printed- Cars - Trucks - Bikes Peds

	Seafood Wy From North			Northern Ave From East			Driveway From South			Northern Ave From West			Int. Total	
	Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM		2	0	12	0	20	1	0	0	0	26	79	0	140
07:15 AM		2	0	11	0	26	1	0	0	0	18	79	1	138
07:30 AM		1	0	13	0	20	1	0	0	0	15	92	0	142
07:45 AM		2	0	8	0	29	3	0	0	0	17	106	1	166
Total		7	0	44	0	95	6	0	0	0	76	356	2	586
08:00 AM		1	0	19	0	24	3	0	0	0	16	104	1	168
08:15 AM		2	0	15	0	22	1	0	0	0	20	120	1	181
08:30 AM		2	0	17	0	28	0	0	0	0	14	151	1	213
08:45 AM		0	0	12	0	30	2	0	0	0	9	141	1	195
Total		5	0	63	0	104	6	0	0	0	59	516	4	757
Grand Total		12	0	107	0	199	12	0	0	0	135	872	6	1343
Apprch %		10.1	0	89.9	0	94.3	5.7	0	0	0	13.3	86.1	0.6	
Total %		0.9	0	8	0	14.8	0.9	0	0	0	10.1	64.9	0.4	
Cars		11	0	92	0	157	12	0	0	0	127	821	6	1226
% Cars		91.7	0	86	0	78.9	100	0	0	0	94.1	94.2	100	91.3
Trucks		1	0	15	0	42	0	0	0	0	7	45	0	110
% Trucks		8.3	0	14	0	21.1	0	0	0	0	5.2	5.2	0	8.2
Bikes Peds		0	0	0	0	0	0	0	0	0	1	6	0	7
% Bikes Peds		0	0	0	0	0	0	0	0	0	0.7	0.7	0	0.5

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/3/2018

Page No : 2

	Seafood Wy From North				Northern Ave From East				Driveway From South				Northern Ave From West					
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 08:00 AM																		
08:00 AM	1	0	19	20		0	24	3	27	0	0	0	0	16	104	1	121	168
08:15 AM	2	0	15	17		0	22	1	23	0	0	0	0	20	120	1	141	181
08:30 AM	2	0	17	19		0	28	0	28	0	0	0	0	14	151	1	166	213
08:45 AM	0	0	12	12		0	30	2	32	0	0	0	0	9	141	1	151	195
Total Volume	5	0	63	68		0	104	6	110	0	0	0	0	59	516	4	579	757
% App. Total	7.4	0	92.6			0	94.5	5.5		0	0	0		10.2	89.1	0.7		
PHF	.625	.000	.829	.850		.000	.867	.500	.859	.000	.000	.000	.000	.738	.854	1.00	.872	.888
Cars	4	0	56	60		0	84	6	90	0	0	0	0	55	491	4	550	700
% Cars	80.0	0	88.9	88.2		0	80.8	100	81.8	0	0	0	0	93.2	95.2	100	95.0	92.5
Trucks	1	0	7	8		0	20	0	20	0	0	0	0	3	19	0	22	50
% Trucks	20.0	0	11.1	11.8		0	19.2	0	18.2	0	0	0	0	5.1	3.7	0	3.8	6.6
Bikes Peds	0	0	0	0		0	0	0	0	0	0	0	0	1	6	0	7	7
% Bikes Peds	0	0	0	0		0	0	0	0	0	0	0	0	1.7	1.2	0	1.2	0.9

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

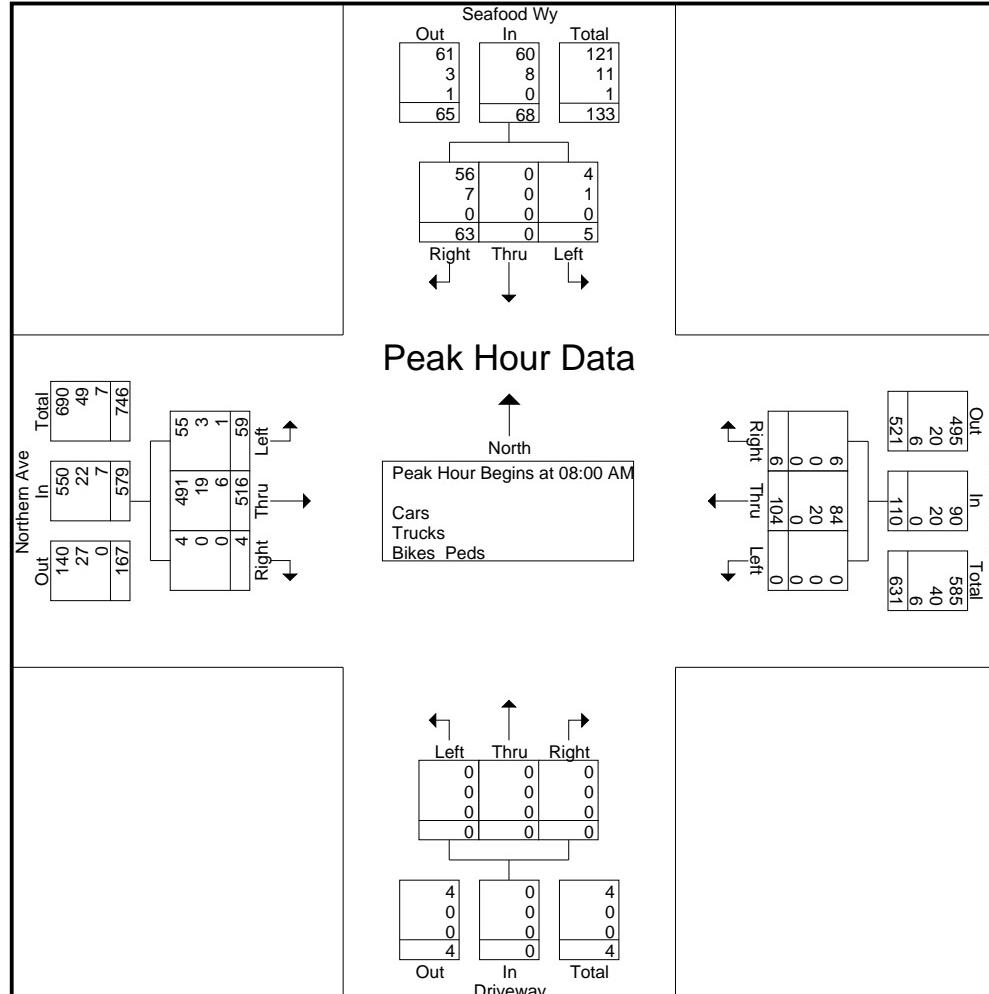
Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/3/2018

Page No : 3



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

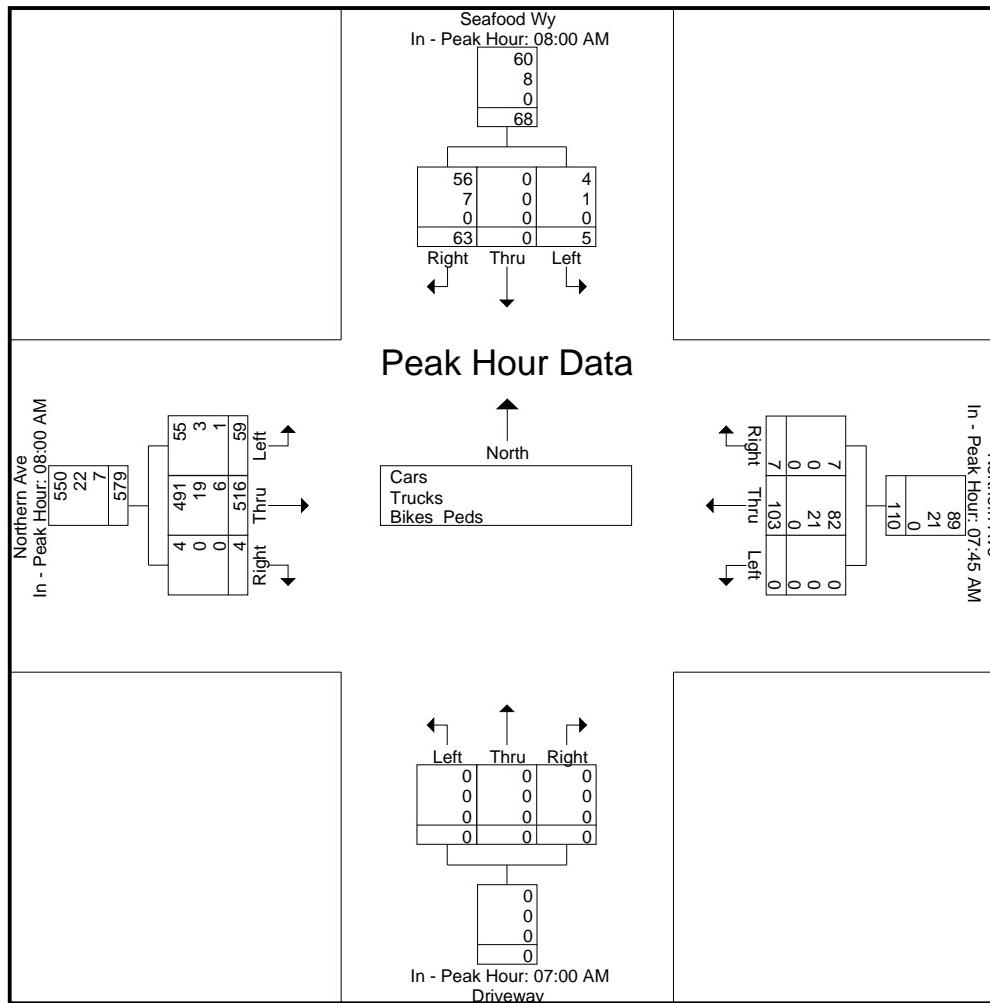
Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				07:00 AM				08:00 AM			
+0 mins.	1	0	19	20	0	29	3	32	0	0	0	0	16	104	1	121
+15 mins.	2	0	15	17	0	24	3	27	0	0	0	0	20	120	1	141
+30 mins.	2	0	17	19	0	22	1	23	0	0	0	0	14	151	1	166
+45 mins.	0	0	12	12	0	28	0	28	0	0	0	0	9	141	1	151
Total Volume	5	0	63	68	0	103	7	110	0	0	0	0	59	516	4	579
% App. Total	7.4	0	92.6		0	93.6	6.4		0	0	0	0	10.2	89.1	0.7	

Accurate Counts

978-664-2565

PHF	.625	.000	.829	.850	.000	.888	.583	.859	.000	.000	.000	.000	.738	.854	1.000	.872
Cars	4	0	56	60	0	82	7	89	0	0	0	0	55	491	4	550
% Cars	80	0	88.9	88.2	0	79.6	100	80.9	0	0	0	0	93.2	95.2	100	95
Trucks	1	0	7	8	0	21	0	21	0	0	0	0	3	19	0	22
% Trucks	20	0	11.1	11.8	0	20.4	0	19.1	0	0	0	0	5.1	3.7	0	3.8
Bikes Peds	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	7
% Bikes Peds	0	0	0	0	0	0	0	0	0	0	0	0	1.7	1.2	0	1.2



Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

Page No : 1

Groups Printed- Cars - Trucks

	Seafood Wy From North			Northern Ave From East			Driveway From South			Northern Ave From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	7	0	19	0	79	1	1	0	0	6	26	0	139
04:15 PM	6	0	11	0	76	0	0	0	0	5	26	0	124
04:30 PM	2	0	15	0	97	1	0	0	0	3	25	0	143
04:45 PM	2	0	11	0	68	0	0	0	0	3	33	0	117
Total	17	0	56	0	320	2	1	0	0	17	110	0	523
05:00 PM	4	0	18	0	109	0	0	0	0	4	22	0	157
05:15 PM	0	0	13	0	89	3	0	0	0	6	28	1	140
05:30 PM	2	0	5	0	64	0	1	0	0	2	20	0	94
05:45 PM	1	0	17	0	63	0	0	0	0	3	21	0	105
Total	7	0	53	0	325	3	1	0	0	15	91	1	496
Grand Total	24	0	109	0	645	5	2	0	0	32	201	1	1019
Apprch %	18	0	82	0	99.2	0.8	100	0	0	13.7	85.9	0.4	
Total %	2.4	0	10.7	0	63.3	0.5	0.2	0	0	3.1	19.7	0.1	
Cars	18	0	95	0	598	4	2	0	0	28	163	1	909
% Cars	75	0	87.2	0	92.7	80	100	0	0	87.5	81.1	100	89.2
Trucks	6	0	14	0	47	1	0	0	0	4	38	0	110
% Trucks	25	0	12.8	0	7.3	20	0	0	0	12.5	18.9	0	10.8

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

Page No : 2

	Seafood Wy From North				Northern Ave From East				Driveway From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

04:30 PM	2	0	15	17	0	97	1	98	0	0	0	0	3	25	0	28	143
04:45 PM	2	0	11	13	0	68	0	68	0	0	0	0	3	33	0	36	117
05:00 PM	4	0	18	22	0	109	0	109	0	0	0	0	4	22	0	26	157
05:15 PM	0	0	13	13	0	89	3	92	0	0	0	0	6	28	1	35	140
Total Volume	8	0	57	65	0	363	4	367	0	0	0	0	16	108	1	125	557
% App. Total	12.3	0	87.7		0	98.9	1.1		0	0	0		12.8	86.4	0.8		
PHF	.500	.000	.792	.739	.000	.833	.333	.842	.000	.000	.000	.000	.667	.818	.250	.868	.887
Cars	6	0	47	53	0	339	3	342	0	0	0	0	14	91	1	106	501
% Cars	75.0	0	82.5	81.5	0	93.4	75.0	93.2	0	0	0	0	87.5	84.3	100	84.8	89.9
Trucks	2	0	10	12	0	24	1	25	0	0	0	0	2	17	0	19	56
% Trucks	25.0	0	17.5	18.5	0	6.6	25.0	6.8	0	0	0	0	12.5	15.7	0	15.2	10.1

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

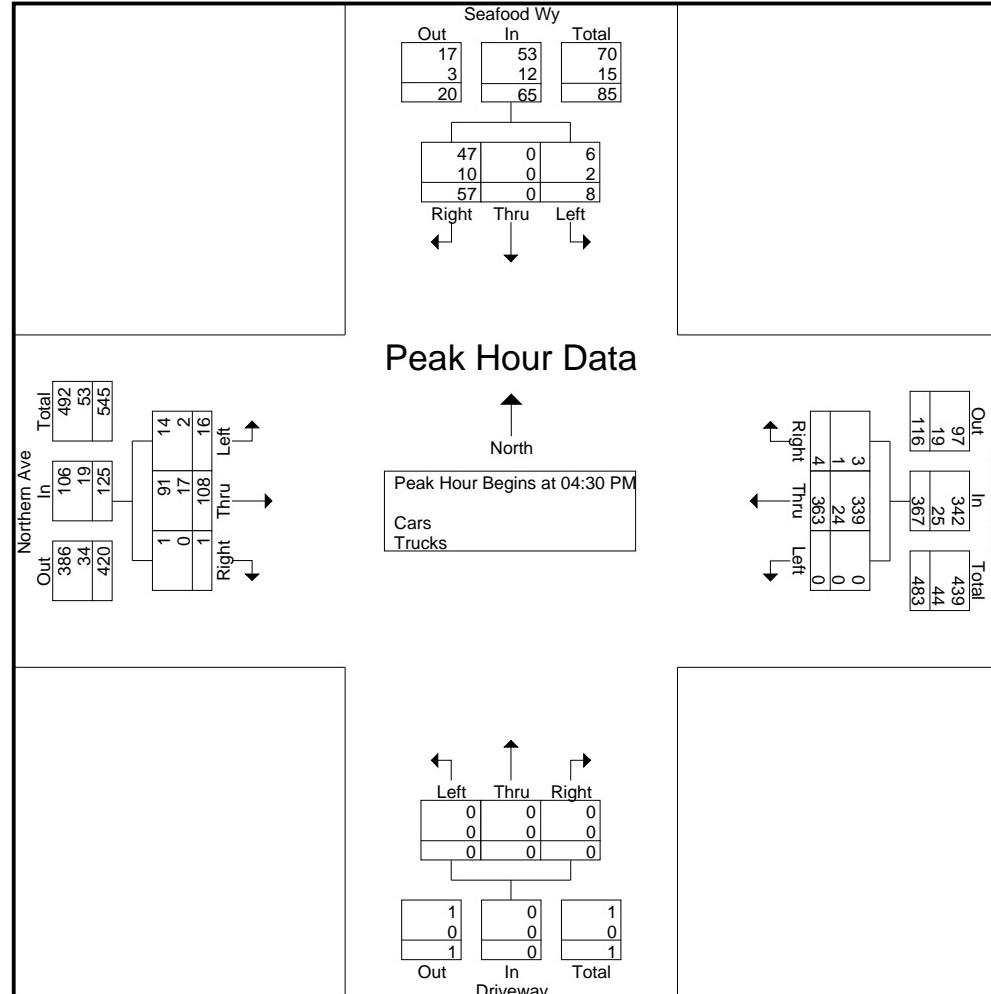
Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

Page No : 3



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

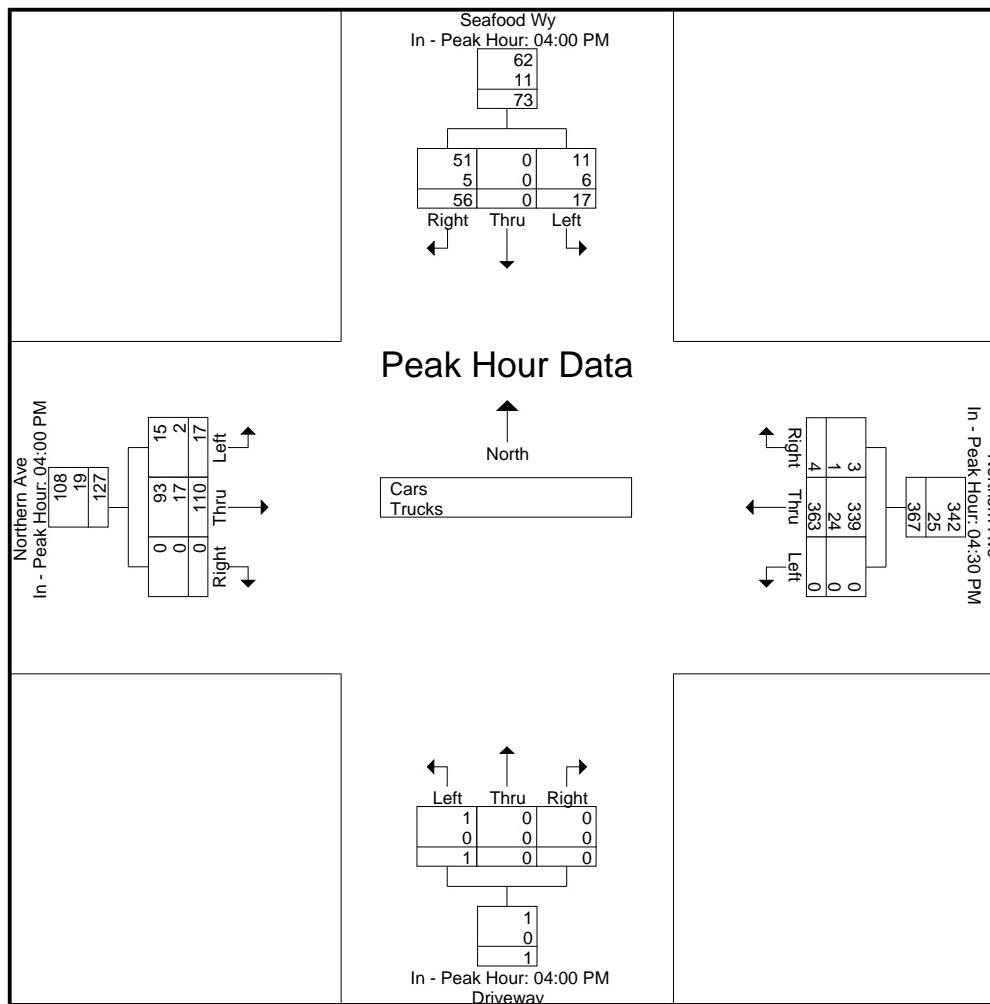
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:00 PM				04:00 PM			
+0 mins.	7	0	19	26	0	97	1	98	1	0	0	1	6	26	0	32
+15 mins.	6	0	11	17	0	68	0	68	0	0	0	0	5	26	0	31
+30 mins.	2	0	15	17	0	109	0	109	0	0	0	0	3	25	0	28
+45 mins.	2	0	11	13	0	89	3	92	0	0	0	0	3	33	0	36
Total Volume	17	0	56	73	0	363	4	367	1	0	0	1	17	110	0	127
% App. Total	23.3	0	76.7		0	98.9	1.1		100	0	0		13.4	86.6	0	

Accurate Counts

978-664-2565

PHF	.607	.000	.737	.702	.000	.833	.333	.842	.250	.000	.000	.250	.708	.833	.000	.882
Cars	11	0	51	62	0	339	3	342	1	0	0	1	15	93	0	108
% Cars	64.7	0	91.1	84.9	0	93.4	75	93.2	100	0	0	100	88.2	84.5	0	85
Trucks	6	0	5	11	0	24	1	25	0	0	0	0	2	17	0	19
% Trucks	35.3	0	8.9	15.1	0	6.6	25	6.8	0	0	0	0	11.8	15.5	0	15



Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

Page No : 5

Groups Printed- Cars

	Seafood Wy From North			Northern Ave From East			Driveway From South			Northern Ave From West			Int. Total	
	Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM		5	0	19	0	75	1	1	0	0	6	21	0	128
04:15 PM		4	0	10	0	66	0	0	0	0	4	21	0	105
04:30 PM		1	0	14	0	91	1	0	0	0	2	23	0	132
04:45 PM		1	0	8	0	64	0	0	0	0	3	28	0	104
Total		11	0	51	0	296	2	1	0	0	15	93	0	469
05:00 PM		4	0	12	0	101	0	0	0	0	3	17	0	137
05:15 PM		0	0	13	0	83	2	0	0	0	6	23	1	128
05:30 PM		2	0	3	0	59	0	1	0	0	2	14	0	81
05:45 PM		1	0	16	0	59	0	0	0	0	2	16	0	94
Total		7	0	44	0	302	2	1	0	0	13	70	1	440
Grand Total		18	0	95	0	598	4	2	0	0	28	163	1	909
Apprch %		15.9	0	84.1	0	99.3	0.7	100	0	0	14.6	84.9	0.5	
Total %		2	0	10.5	0	65.8	0.4	0.2	0	0	3.1	17.9	0.1	

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

Page No : 6

	Seafood Wy From North				Northern Ave From East				Driveway From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

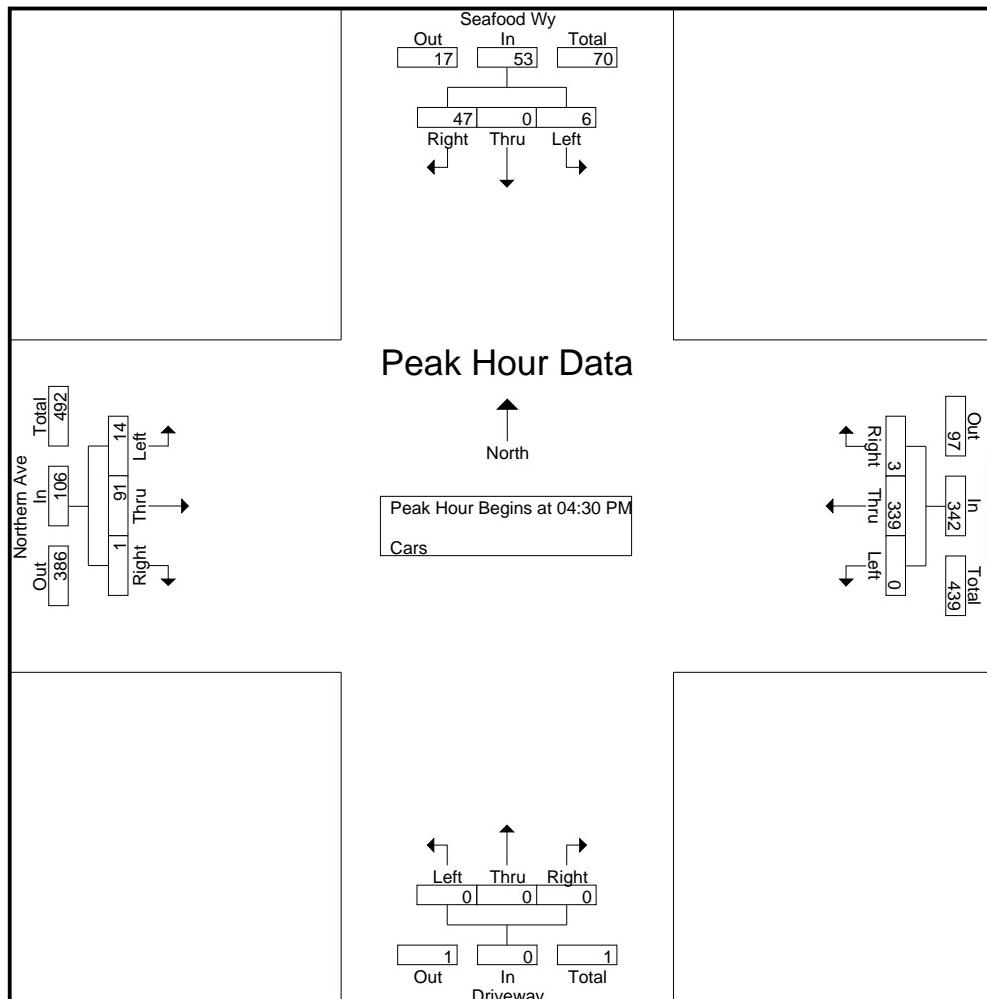
04:30 PM	1	0	14	15	0	91	1	92	0	0	0	0	2	23	0	25	132
04:45 PM	1	0	8	9	0	64	0	64	0	0	0	0	3	28	0	31	104
05:00 PM	4	0	12	16	0	101	0	101	0	0	0	0	3	17	0	20	137
05:15 PM	0	0	13	13	0	83	2	85	0	0	0	0	6	23	1	30	128
Total Volume	6	0	47	53	0	339	3	342	0	0	0	0	14	91	1	106	501
% App. Total	11.3	0	88.7		0	99.1	0.9		0	0	0		13.2	85.8	0.9		
PHF	.375	.000	.839	.828	.000	.839	.375	.847	.000	.000	.000	.000	.583	.813	.250	.855	.914

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway
 E/W Street : Northern Avenue
 City/State : Boston, MA
 Weather : Clear

File Name : 17173001
 Site Code : 17173001
 Start Date : 1/2/2018
 Page No : 7



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

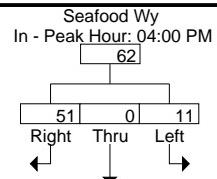
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:00 PM				04:00 PM			
+0 mins.	5	0	19	24	0	91	1	92	1	0	0	1	6	21	0	27
+15 mins.	4	0	10	14	0	64	0	64	0	0	0	0	4	21	0	25
+30 mins.	1	0	14	15	0	101	0	101	0	0	0	0	2	23	0	25
+45 mins.	1	0	8	9	0	83	2	85	0	0	0	0	3	28	0	31
Total Volume	11	0	51	62	0	339	3	342	1	0	0	1	15	93	0	108
% App. Total	17.7	0	82.3		0	99.1	0.9		100	0	0		13.9	86.1	0	

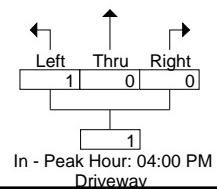
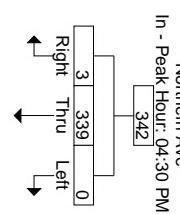
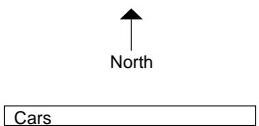
Accurate Counts

978-664-2565

PHF	.550	.000	.671	.646	.000	.839	.375	.847	.250	.000	.000	.250	.625	.830	.000	.871
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Peak Hour Data



Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

Page No : 9

Groups Printed- Trucks

	Seafood Wy From North			Northern Ave From East			Driveway From South			Northern Ave From West			Int. Total	
	Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM		2	0	0	0	4	0	0	0	0	0	5	0	11
04:15 PM		2	0	1	0	10	0	0	0	0	1	5	0	19
04:30 PM		1	0	1	0	6	0	0	0	0	1	2	0	11
04:45 PM		1	0	3	0	4	0	0	0	0	0	5	0	13
Total		6	0	5	0	24	0	0	0	0	2	17	0	54
05:00 PM		0	0	6	0	8	0	0	0	0	1	5	0	20
05:15 PM		0	0	0	0	6	1	0	0	0	0	5	0	12
05:30 PM		0	0	2	0	5	0	0	0	0	0	6	0	13
05:45 PM		0	0	1	0	4	0	0	0	0	1	5	0	11
Total		0	0	9	0	23	1	0	0	0	2	21	0	56
Grand Total		6	0	14	0	47	1	0	0	0	4	38	0	110
Apprch %		30	0	70	0	97.9	2.1	0	0	0	9.5	90.5	0	
Total %		5.5	0	12.7	0	42.7	0.9	0	0	0	3.6	34.5	0	

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

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	Seafood Wy				Northern Ave				Driveway				Northern Ave				
	From North				From East				From South				From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

04:15 PM	2	0	1	3	0	10	0	10	0	0	0	0	1	5	0	6	19
04:30 PM	1	0	1	2	0	6	0	6	0	0	0	0	1	2	0	3	11
04:45 PM	1	0	3	4	0	4	0	4	0	0	0	0	0	5	0	5	13
05:00 PM	0	0	6	6	0	8	0	8	0	0	0	0	1	5	0	6	20
Total Volume	4	0	11	15	0	28	0	28	0	0	0	0	3	17	0	20	63
% App. Total	26.7	0	73.3		0	100	0		0	0	0		15	85	0		
PHF	.500	.000	.458	.625	.000	.700	.000	.700	.000	.000	.000	.000	.750	.850	.000	.833	.788

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

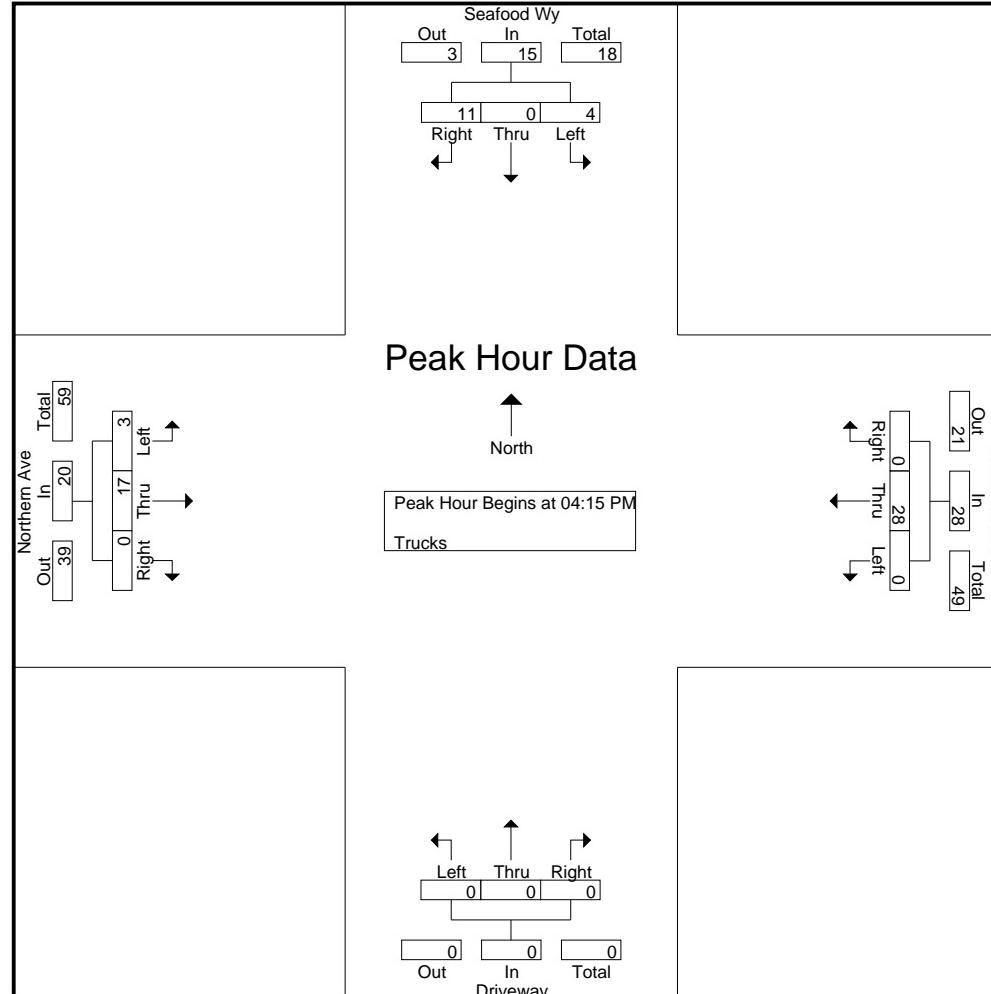
Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

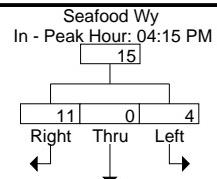
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:00 PM				05:00 PM			
+0 mins.	2	0	1	3	0	10	0	10	0	0	0	0	1	5	0	6
+15 mins.	1	0	1	2	0	6	0	6	0	0	0	0	0	5	0	5
+30 mins.	1	0	3	4	0	4	0	4	0	0	0	0	0	6	0	6
+45 mins.	0	0	6	6	0	8	0	8	0	0	0	0	1	5	0	6
Total Volume	4	0	11	15	0	28	0	28	0	0	0	0	2	21	0	23
% App. Total	26.7	0	73.3		0	100	0		0	0	0	0	8.7	91.3	0	

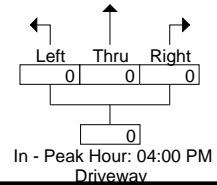
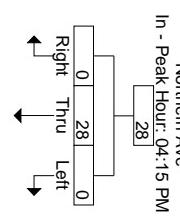
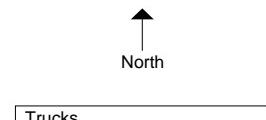
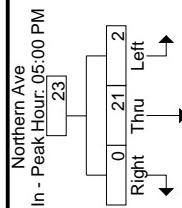
Accurate Counts

978-664-2565

PHF	.500	.000	.458	.625	.000	.700	.000	.700	.000	.000	.000	.000	.000	.500	.875	.000	.958
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Peak Hour Data



Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

Page No : 13

Groups Printed- Bikes Peds

	Seafood Wy From North				Northern Ave From East				Driveway From South				Northern Ave From West							
	Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Excl. Total	Incl. Total	Int. Total
04:00 PM		0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	5	0	5
04:15 PM		0	0	0	2	0	0	0	1	0	0	0	2	0	0	0	0	5	0	5
04:30 PM		0	0	0	2	0	1	0	0	0	0	0	1	0	0	0	0	3	1	4
04:45 PM		0	0	0	1	0	0	0	1	0	0	0	2	0	1	0	1	5	1	6
Total		0	0	0	7	0	1	0	2	0	0	0	8	0	1	0	1	18	2	20
05:00 PM		0	0	0	0	0	1	0	0	0	0	0	4	0	0	0	1	5	1	6
05:15 PM		0	0	0	2	0	3	0	0	0	0	0	3	1	0	0	1	6	4	10
05:30 PM		0	0	0	1	0	2	0	0	0	0	0	1	0	0	0	0	2	2	4
05:45 PM		0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	1	4	1	5
Total		0	0	0	3	0	7	0	0	0	0	0	11	1	0	0	3	17	8	25
Grand Total		0	0	0	10	0	8	0	2	0	0	0	19	1	1	0	4	35	10	45
Apprch %		0	0	0		0	100	0		0	0	0		50	50	0				
Total %		0	0	0		0	80	0		0	0	0		10	10	0		77.8	22.2	

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

Page No : 14

	Seafood Wy				Northern Ave				Driveway				Northern Ave				
	From North				From East				From South				From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	1	0	0	1	4
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	6	0	6	0	0	0	0	1	1	0	2	8
% App. Total	0	0	0		0	100	0		0	0	0		50	50	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.250	.250	.000	.500	.500

Accurate Counts

978-664-2565

N/S Street : Seafood Way / Driveway

E/W Street : Northern Avenue

City/State : Boston, MA

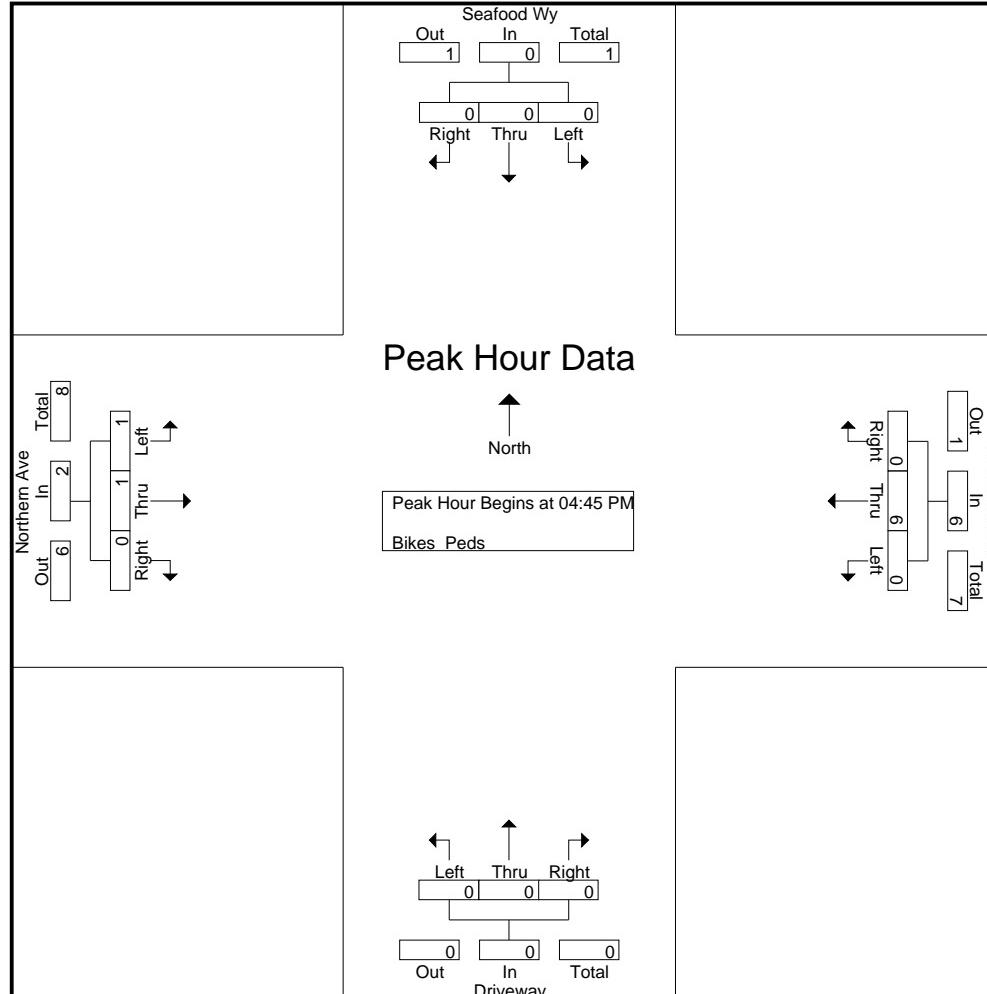
Weather : Clear

File Name : 17173001

Site Code : 17173001

Start Date : 1/2/2018

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

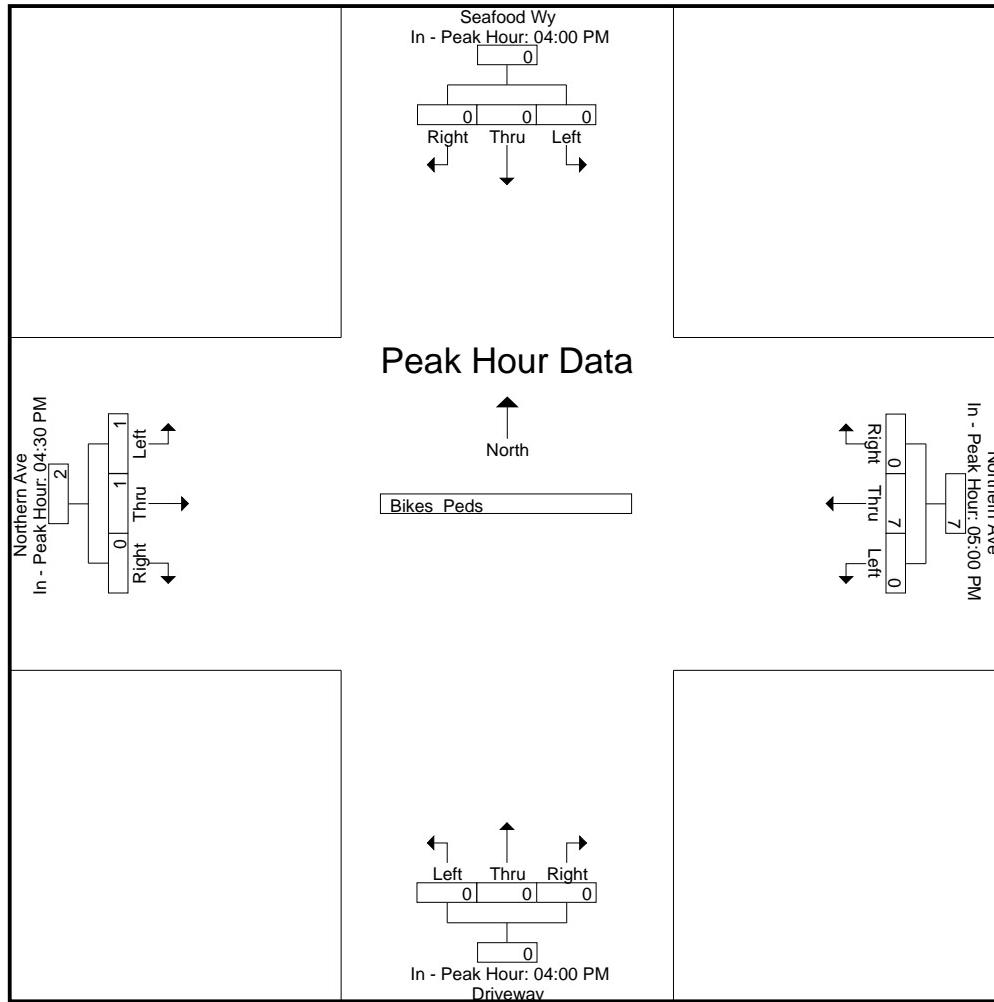
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:30 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1
Total Volume	0	0	0	0	0	7	0	7	0	0	0	0	1	1	0	2
% App. Total	0	0	0		0	100	0		0	0	0		50	50	0	

Accurate Counts

978-664-2565

PHF	.000	.000	.000	.000	.000	.583	.000	.583	.000	.000	.000	.000	.250	.250	.000	.500
-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------



Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 1

Groups Printed- Cars - Trucks

	Tide St From North			Driveway From East			Tide St From South			Northern Ave From West			Int. Total	
	Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM		0	2	3	0	0	0	17	8	2	16	4	33	85
07:15 AM		0	6	1	0	1	0	14	9	1	5	1	44	82
07:30 AM		0	3	5	0	1	0	10	6	0	5	2	38	70
07:45 AM		0	0	6	0	0	0	20	5	3	4	3	61	102
Total		0	11	15	0	2	0	61	28	6	30	10	176	339
08:00 AM		0	4	5	0	0	0	16	4	0	5	0	41	75
08:15 AM		0	3	2	0	1	0	13	6	1	9	0	55	90
08:30 AM		0	9	5	0	1	0	16	7	0	22	1	54	115
08:45 AM		0	1	3	0	2	0	23	7	0	5	1	62	104
Total		0	17	15	0	4	0	68	24	1	41	2	212	384
Grand Total		0	28	30	0	6	0	129	52	7	71	12	388	723
Apprch %		0	48.3	51.7	0	100	0	68.6	27.7	3.7	15.1	2.5	82.4	
Total %		0	3.9	4.1	0	0.8	0	17.8	7.2	1	9.8	1.7	53.7	
Cars		0	23	27	0	5	0	93	50	7	69	10	350	634
% Cars		0	82.1	90	0	83.3	0	72.1	96.2	100	97.2	83.3	90.2	87.7
Trucks		0	5	3	0	1	0	36	2	0	2	2	38	89
% Trucks		0	17.9	10	0	16.7	0	27.9	3.8	0	2.8	16.7	9.8	12.3

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 2

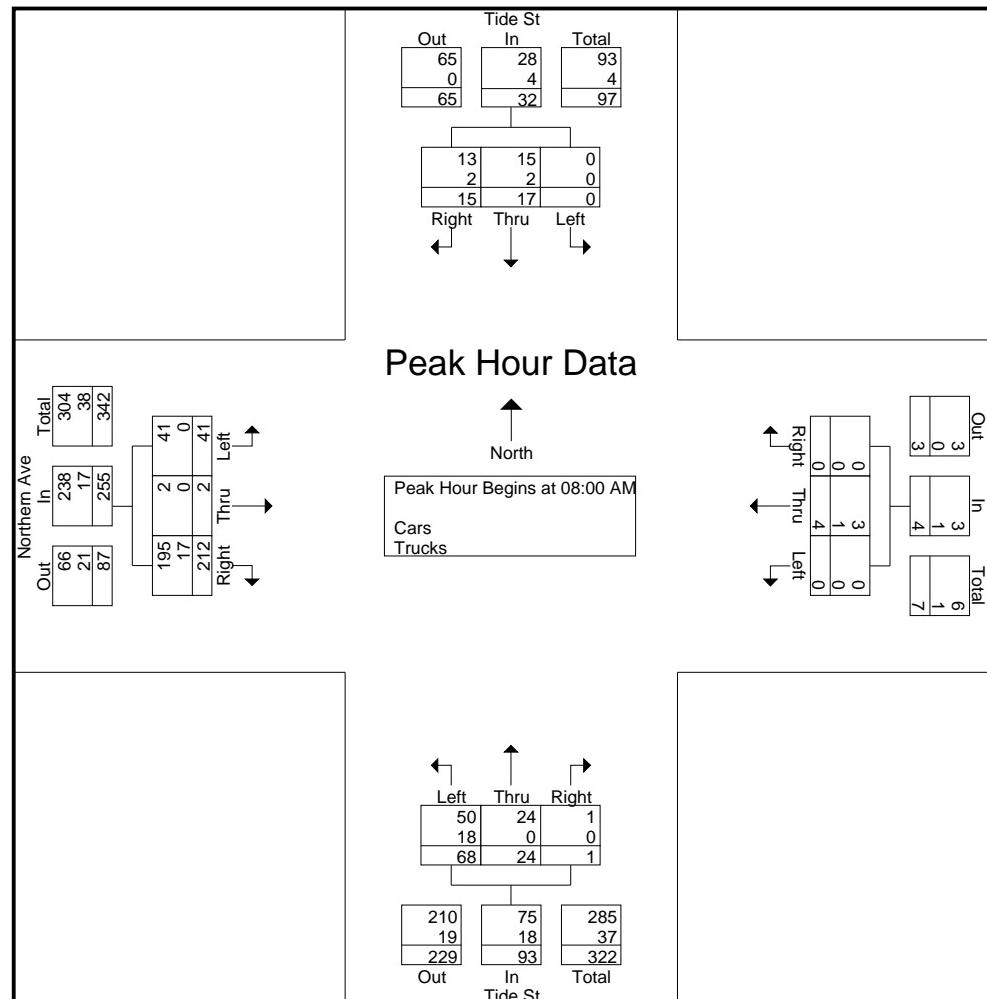
	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	4	5	9	0	0	0	0	16	4	0	20	5	0	41	46	75
08:15 AM	0	3	2	5	0	1	0	1	13	6	1	20	9	0	55	64	90
08:30 AM	0	9	5	14	0	1	0	1	16	7	0	23	22	1	54	77	115
08:45 AM	0	1	3	4	0	2	0	2	23	7	0	30	5	1	62	68	104
Total Volume	0	17	15	32	0	4	0	4	68	24	1	93	41	2	212	255	384
% App. Total	0	53.1	46.9		0	100	0		73.1	25.8	1.1		16.1	0.8	83.1		
PHF	.000	.472	.750	.571	.000	.500	.000	.500	.739	.857	.250	.775	.466	.500	.855	.828	.835
Cars	0	15	13	28	0	3	0	3	50	24	1	75	41	2	195	238	344
% Cars	0	88.2	86.7	87.5	0	75.0	0	75.0	73.5	100	100	80.6	100	100	92.0	93.3	89.6
Trucks	0	2	2	4	0	1	0	1	18	0	0	18	0	0	17	17	40
% Trucks	0	11.8	13.3	12.5	0	25.0	0	25.0	26.5	0	0	19.4	0	0	8.0	6.7	10.4

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 3



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

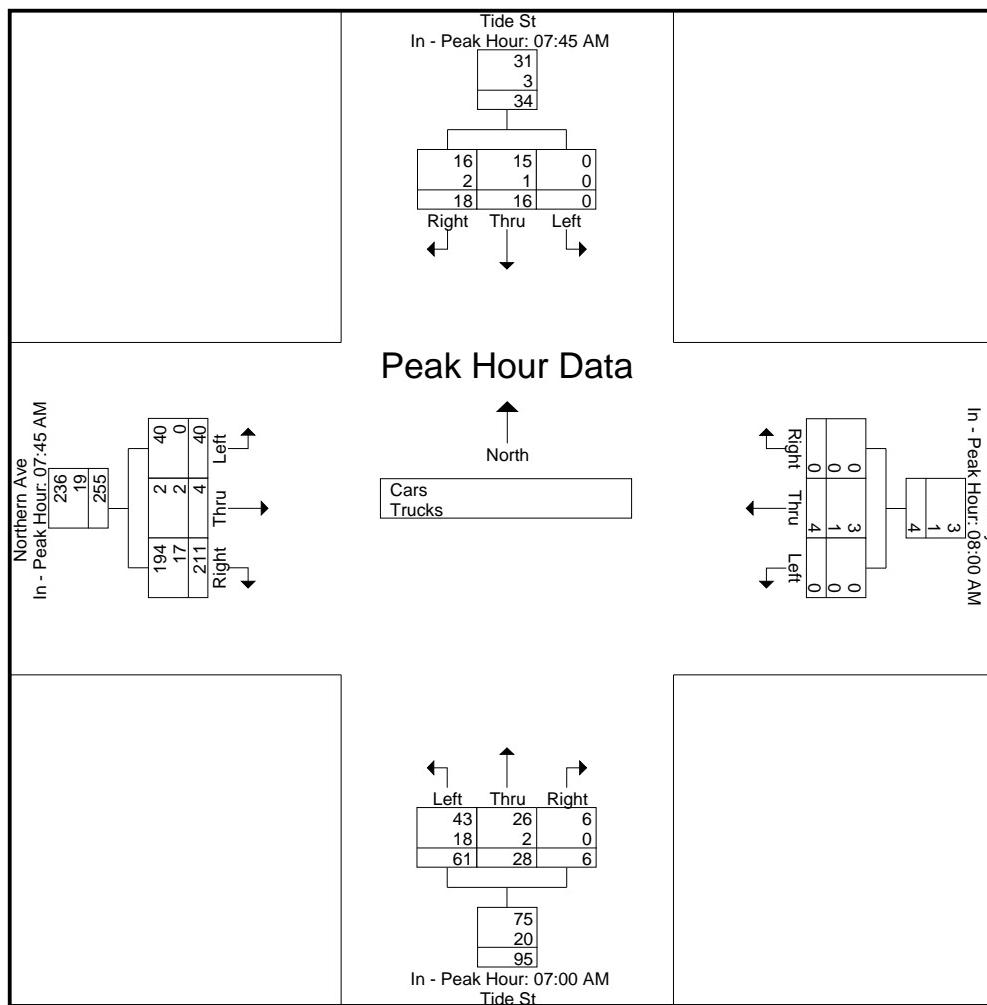
Peak Hour for Each Approach Begins at:

	07:45 AM				08:00 AM				07:00 AM				07:45 AM			
+0 mins.	0	0	6	6	0	0	0	0	17	8	2	27	4	3	61	68
+15 mins.	0	4	5	9	0	1	0	1	14	9	1	24	5	0	41	46
+30 mins.	0	3	2	5	0	1	0	1	10	6	0	16	9	0	55	64
+45 mins.	0	9	5	14	0	2	0	2	20	5	3	28	22	1	54	77
Total Volume	0	16	18	34	0	4	0	4	61	28	6	95	40	4	211	255
% App. Total	0	47.1	52.9		0	100	0		64.2	29.5	6.3		15.7	1.6	82.7	

Accurate Counts

978-664-2565

PHF	.000	.444	.750	.607	.000	.500	.000	.500	.763	.778	.500	.848	.455	.333	.865	.828
Cars	0	15	16	31	0	3	0	3	43	26	6	75	40	2	194	236
% Cars	0	93.8	88.9	91.2	0	75	0	75	70.5	92.9	100	78.9	100	50	91.9	92.5
Trucks	0	1	2	3	0	1	0	1	18	2	0	20	0	2	17	19
% Trucks	0	6.2	11.1	8.8	0	25	0	25	29.5	7.1	0	21.1	0	50	8.1	7.5



Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 5

Groups Printed- Cars

	Tide St From North			Driveway From East			Tide St From South			Northern Ave From West			Int. Total	
	Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM		0	2	3	0	0	0	14	7	2	14	4	29	75
07:15 AM		0	4	1	0	1	0	10	9	1	5	1	36	68
07:30 AM		0	2	4	0	1	0	5	5	0	5	2	33	57
07:45 AM		0	0	6	0	0	0	14	5	3	4	1	57	90
Total		0	8	14	0	2	0	43	26	6	28	8	155	290
08:00 AM		0	3	4	0	0	0	10	4	0	5	0	35	61
08:15 AM		0	3	2	0	0	0	9	6	1	9	0	52	82
08:30 AM		0	9	4	0	1	0	13	7	0	22	1	50	107
08:45 AM		0	0	3	0	2	0	18	7	0	5	1	58	94
Total		0	15	13	0	3	0	50	24	1	41	2	195	344
Grand Total		0	23	27	0	5	0	93	50	7	69	10	350	634
Apprch %		0	46	54	0	100	0	62	33.3	4.7	16.1	2.3	81.6	
Total %		0	3.6	4.3	0	0.8	0	14.7	7.9	1.1	10.9	1.6	55.2	

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 6

	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

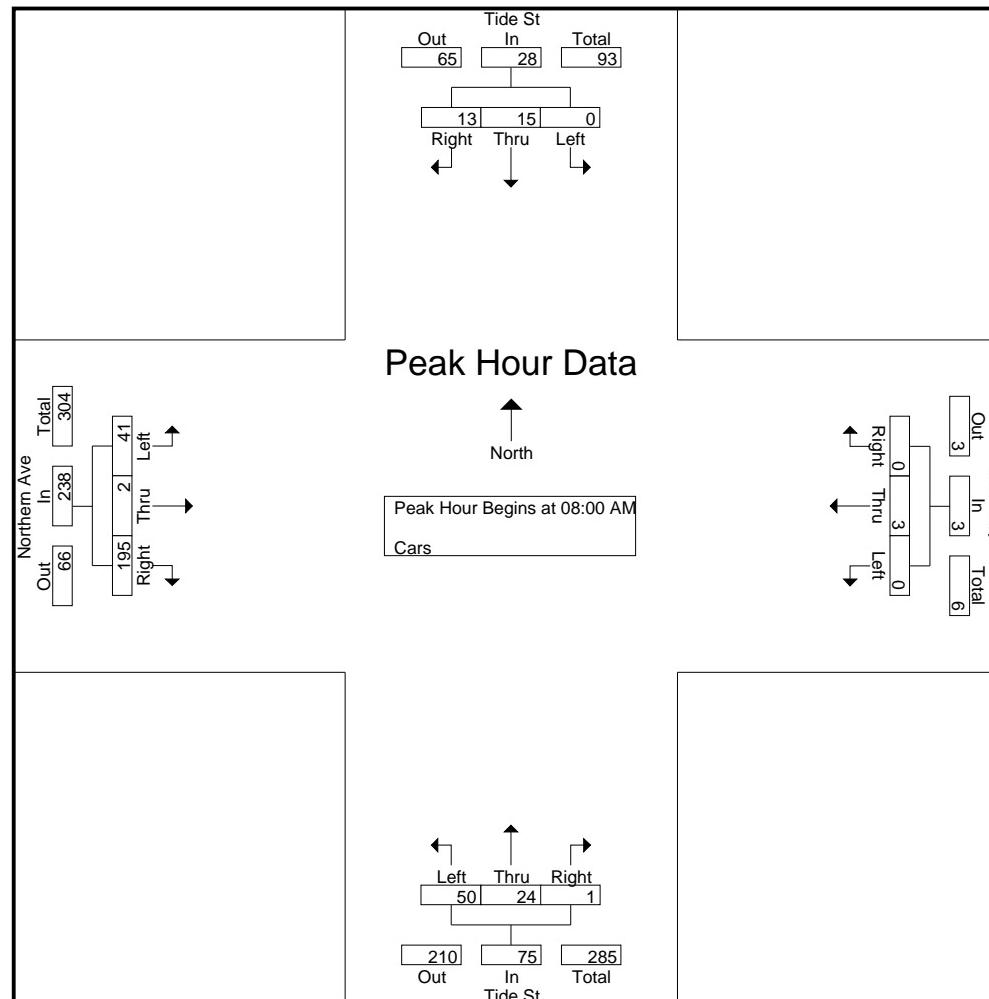
08:00 AM	0	3	4	7	0	0	0	0	10	4	0	14	5	0	35	40	61
08:15 AM	0	3	2	5	0	0	0	0	9	6	1	16	9	0	52	61	82
08:30 AM	0	9	4	13	0	1	0	1	13	7	0	20	22	1	50	73	107
08:45 AM	0	0	3	3	0	2	0	2	18	7	0	25	5	1	58	64	94
Total Volume	0	15	13	28	0	3	0	3	50	24	1	75	41	2	195	238	344
% App. Total	0	53.6	46.4		0	100	0		66.7	32	1.3		17.2	0.8	81.9		
PHF	.000	.417	.813	.538	.000	.375	.000	.375	.694	.857	.250	.750	.466	.500	.841	.815	.804

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 7



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

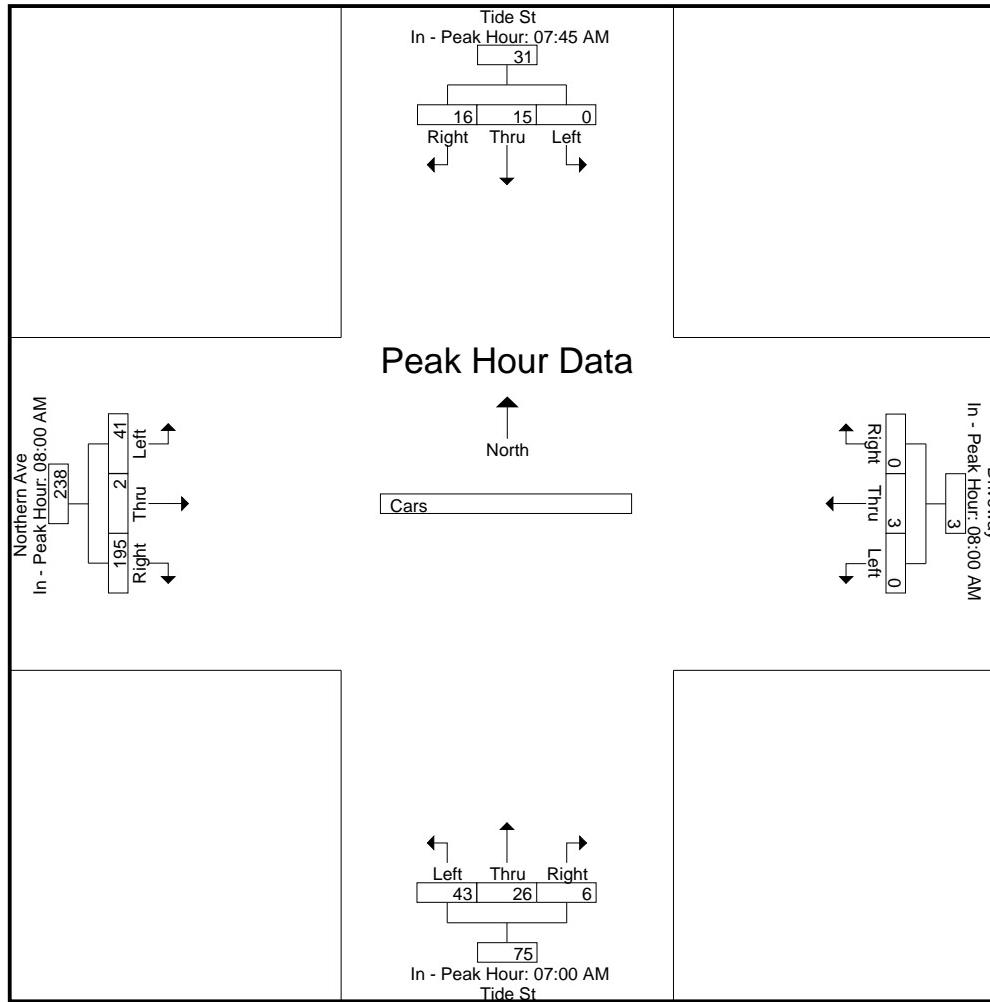
Peak Hour for Each Approach Begins at:

	07:45 AM				08:00 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	6	6	0	0	0	0	14	7	2	23	5	0	35	40
+15 mins.	0	3	4	7	0	0	0	0	10	9	1	20	9	0	52	61
+30 mins.	0	3	2	5	0	1	0	1	5	5	0	10	22	1	50	73
+45 mins.	0	9	4	13	0	2	0	2	14	5	3	22	5	1	58	64
Total Volume	0	15	16	31	0	3	0	3	43	26	6	75	41	2	195	238
% App. Total	0	48.4	51.6		0	100	0		57.3	34.7	8		17.2	0.8	81.9	

Accurate Counts

978-664-2565

PHF	.000	.417	.667	.596	.000	.375	.000	.375	.768	.722	.500	.815	.466	.500	.841	.815
-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------



Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 9

Groups Printed- Trucks

	Tide St From North			Driveway From East			Tide St From South			Northern Ave From West			Int. Total	
	Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM		0	0	0	0	0	0	3	1	0	2	0	4	10
07:15 AM		0	2	0	0	0	0	4	0	0	0	0	8	14
07:30 AM		0	1	1	0	0	0	5	1	0	0	0	5	13
07:45 AM		0	0	0	0	0	0	6	0	0	0	2	4	12
Total		0	3	1	0	0	0	18	2	0	2	2	21	49
08:00 AM		0	1	1	0	0	0	6	0	0	0	0	6	14
08:15 AM		0	0	0	0	1	0	4	0	0	0	0	3	8
08:30 AM		0	0	1	0	0	0	3	0	0	0	0	4	8
08:45 AM		0	1	0	0	0	0	5	0	0	0	0	4	10
Total		0	2	2	0	1	0	18	0	0	0	0	17	40
Grand Total		0	5	3	0	1	0	36	2	0	2	2	38	89
Apprch %		0	62.5	37.5	0	100	0	94.7	5.3	0	4.8	4.8	90.5	
Total %		0	5.6	3.4	0	1.1	0	40.4	2.2	0	2.2	2.2	42.7	

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 10

	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

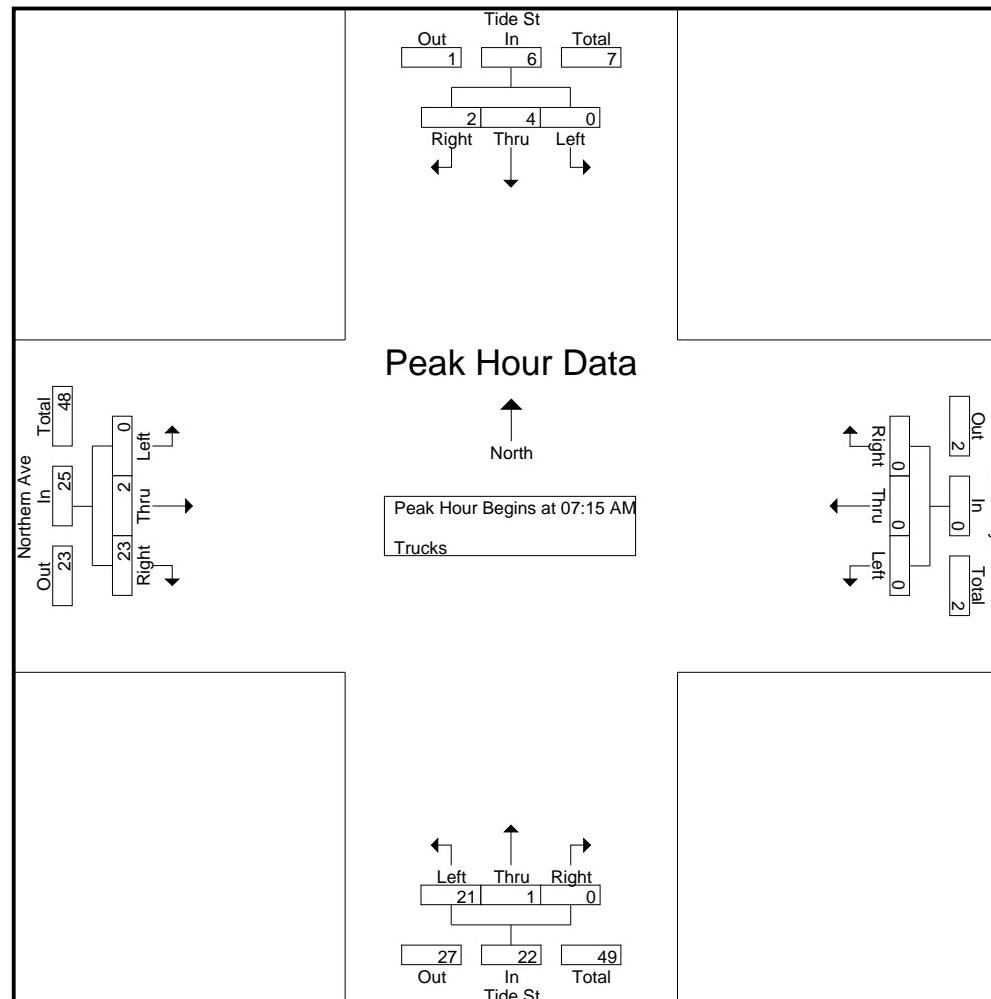
07:15 AM	0	2	0	2	0	0	0	0	4	0	0	4	0	0	8	8	14
07:30 AM	0	1	1	2	0	0	0	0	5	1	0	6	0	0	5	5	13
07:45 AM	0	0	0	0	0	0	0	0	6	0	0	6	0	2	4	6	12
08:00 AM	0	1	1	2	0	0	0	0	6	0	0	6	0	0	6	6	14
Total Volume	0	4	2	6	0	0	0	0	21	1	0	22	0	2	23	25	53
% App. Total	0	66.7	33.3		0	0	0		95.5	4.5	0		0	8	92		
PHF	.000	.500	.500	.750	.000	.000	.000	.000	.875	.250	.000	.917	.000	.250	.719	.781	.946

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 11



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

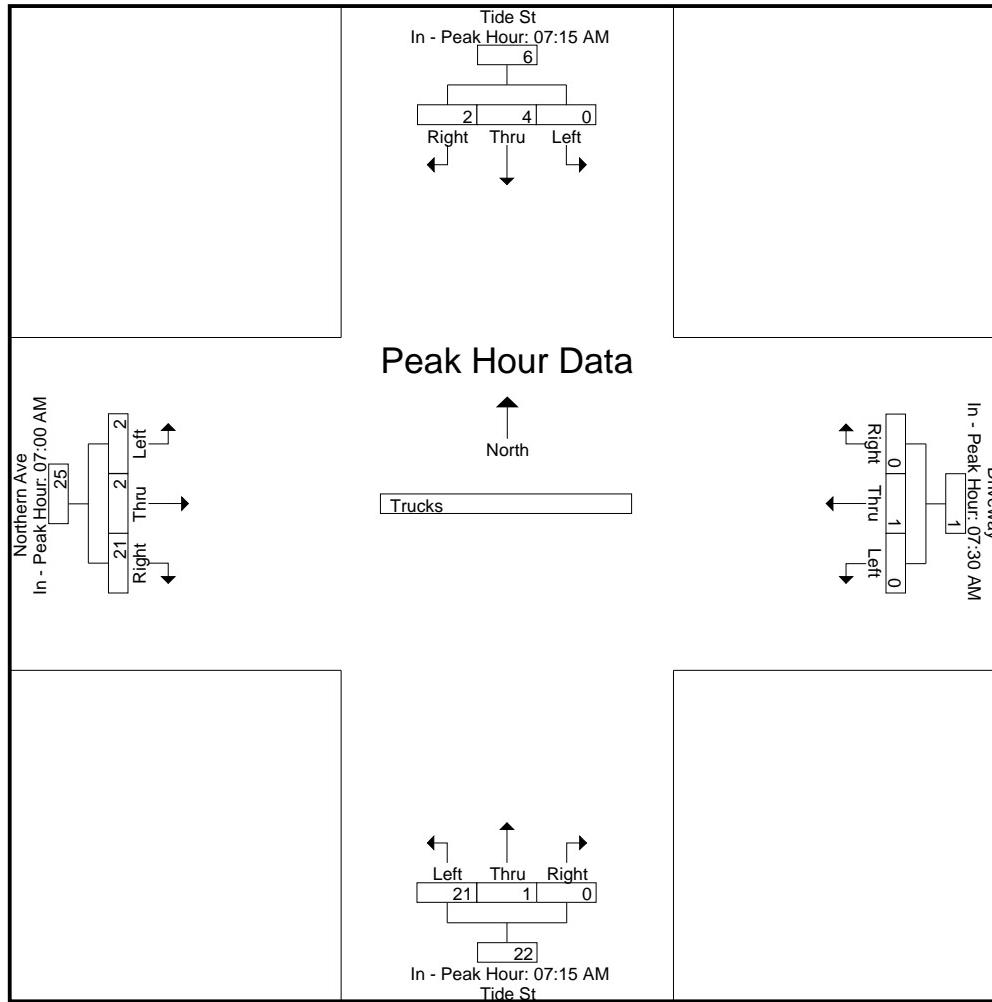
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:15 AM				07:00 AM			
+0 mins.	0	2	0	2	0	0	0	0	4	0	0	4	2	0	4	6
+15 mins.	0	1	1	2	0	0	0	0	5	1	0	6	0	0	8	8
+30 mins.	0	0	0	0	0	0	0	0	6	0	0	6	0	0	5	5
+45 mins.	0	1	1	2	0	1	0	1	6	0	0	6	0	2	4	6
Total Volume	0	4	2	6	0	1	0	1	21	1	0	22	2	2	21	25
% App. Total	0	66.7	33.3		0	100	0		95.5	4.5	0		8	8	84	

Accurate Counts

978-664-2565

PHF | .000 .500 .500 .750 .000 .250 .000 .250 .875 .250 .000 .917 .250 .250 .656 .781



Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 13

Groups Printed- Bikes Peds

	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West							
	Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Excl. Total	Incl. Total	Int. Total
07:00 AM		0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	0	4	0	4
07:15 AM		0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	0	17
07:30 AM		0	0	0	2	0	0	0	0	0	0	0	9	0	0	1	1	12	1	13
07:45 AM		0	0	0	0	0	0	0	2	0	0	0	13	0	0	0	0	15	0	15
Total		0	0	0	3	0	0	0	3	0	0	0	41	0	0	1	1	48	1	49
08:00 AM		0	0	0	3	0	0	0	0	0	0	0	9	0	0	1	0	12	1	13
08:15 AM		0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	0	16
08:30 AM		0	0	0	1	0	0	0	1	0	0	0	27	0	0	0	0	29	0	29
08:45 AM		0	0	0	1	0	0	0	0	0	0	0	26	0	0	3	0	27	3	30
Total		0	0	0	5	0	0	0	1	0	0	0	78	0	0	4	0	84	4	88
Grand Total		0	0	0	8	0	0	0	4	0	0	0	119	0	0	5	1	132	5	137
Apprch %		0	0	0		0	0	0		0	0	0		0	0	100				
Total %		0	0	0		0	0	0		0	0	0		0	0	100		96.4	3.6	

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 14

	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

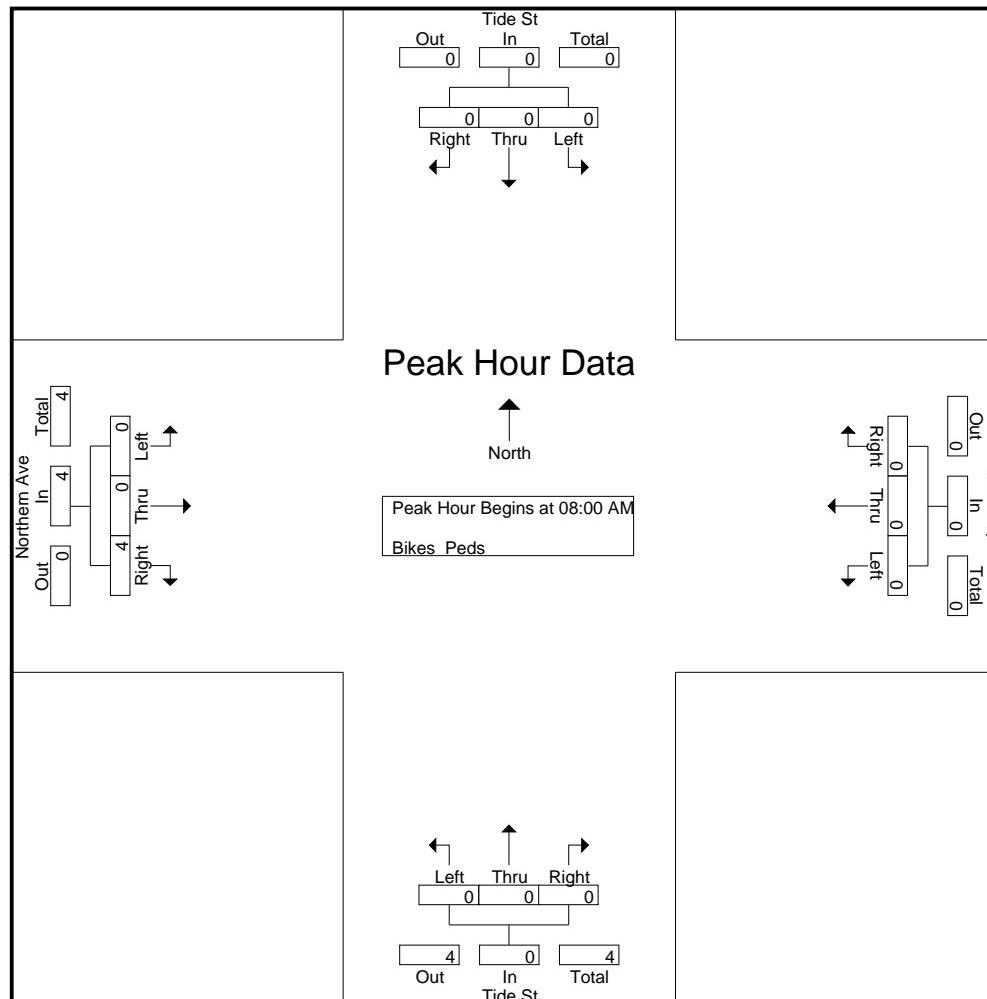
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4
% App. Total	0	0	0		0	0	0		0	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.333	.333	.333

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/3/2018
 Page No : 15



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

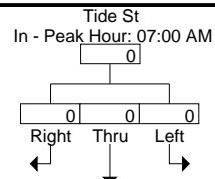
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100

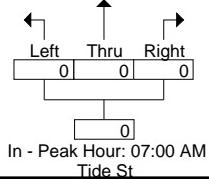
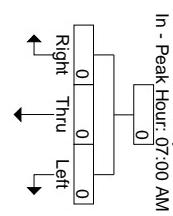
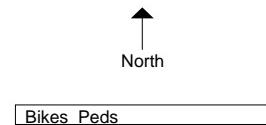
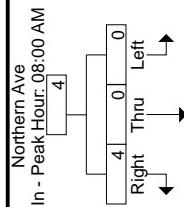
Accurate Counts

978-664-2565

PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.333	.333
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Peak Hour Data



Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 1

Groups Printed- Cars - Trucks

	Tide St From North			Driveway From East			Tide St From South			Northern Ave From West			Int. Total	
	Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM		0	9	7	1	5	0	34	4	0	2	0	24	86
04:15 PM		0	6	8	2	2	0	37	3	0	2	0	25	85
04:30 PM		0	5	7	4	1	0	43	3	1	1	0	18	83
04:45 PM		0	2	7	3	2	0	26	2	0	2	0	33	77
Total		0	22	29	10	10	0	140	12	1	7	0	100	331
05:00 PM		0	5	4	1	2	0	46	2	1	2	0	18	81
05:15 PM		0	9	5	3	0	0	31	1	0	4	0	25	78
05:30 PM		0	4	3	3	3	0	34	4	0	3	0	18	72
05:45 PM		0	11	6	0	0	0	24	0	0	2	0	16	59
Total		0	29	18	7	5	0	135	7	1	11	0	77	290
Grand Total		0	51	47	17	15	0	275	19	2	18	0	177	621
Apprch %		0	52	48	53.1	46.9	0	92.9	6.4	0.7	9.2	0	90.8	
Total %		0	8.2	7.6	2.7	2.4	0	44.3	3.1	0.3	2.9	0	28.5	
Cars		0	48	35	16	15	0	235	17	2	13	0	148	529
% Cars		0	94.1	74.5	94.1	100	0	85.5	89.5	100	72.2	0	83.6	85.2
Trucks		0	3	12	1	0	0	40	2	0	5	0	29	92
% Trucks		0	5.9	25.5	5.9	0	0	14.5	10.5	0	27.8	0	16.4	14.8

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 2

	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

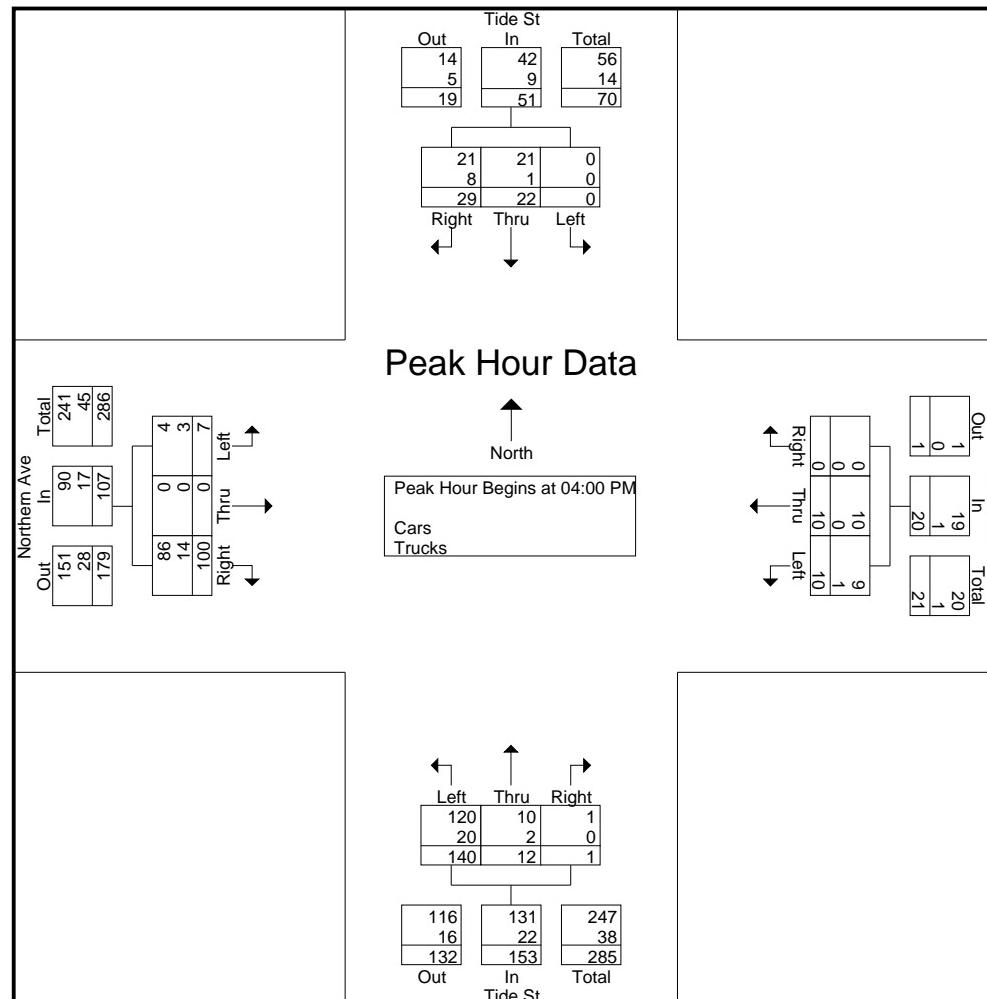
04:00 PM	0	9	7	16	1	5	0	6	34	4	0	38	2	0	24	26	86
04:15 PM	0	6	8	14	2	2	0	4	37	3	0	40	2	0	25	27	85
04:30 PM	0	5	7	12	4	1	0	5	43	3	1	47	1	0	18	19	83
04:45 PM	0	2	7	9	3	2	0	5	26	2	0	28	2	0	33	35	77
Total Volume	0	22	29	51	10	10	0	20	140	12	1	153	7	0	100	107	331
% App. Total	0	43.1	56.9		50	50	0		91.5	7.8	0.7		6.5	0	93.5		
PHF	.000	.611	.906	.797	.625	.500	.000	.833	.814	.750	.250	.814	.875	.000	.758	.764	.962
Cars	0	21	21	42	9	10	0	19	120	10	1	131	4	0	86	90	282
% Cars	0	95.5	72.4	82.4	90.0	100	0	95.0	85.7	83.3	100	85.6	57.1	0	86.0	84.1	85.2
Trucks	0	1	8	9	1	0	0	1	20	2	0	22	3	0	14	17	49
% Trucks	0	4.5	27.6	17.6	10.0	0	0	5.0	14.3	16.7	0	14.4	42.9	0	14.0	15.9	14.8

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 3



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

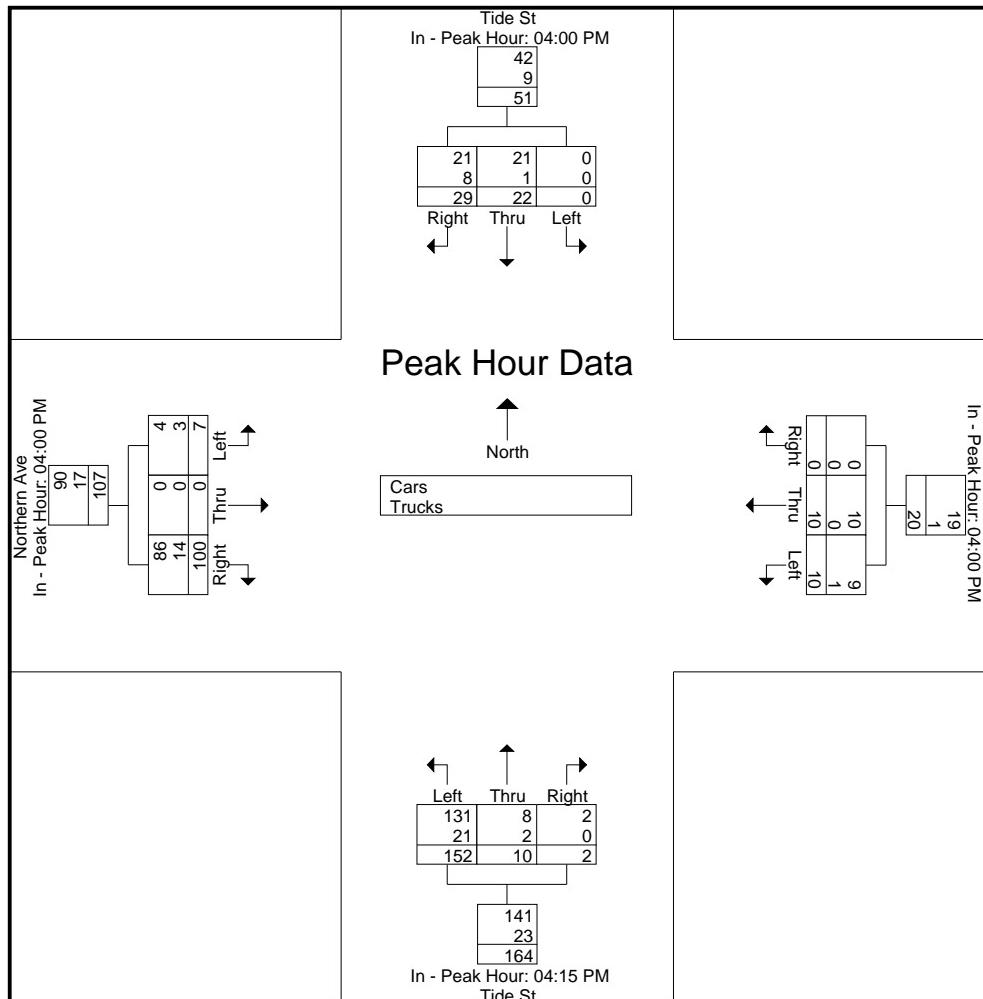
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	0	9	7	16	1	5	0	6	37	3	0	40	2	0	24	26
+15 mins.	0	6	8	14	2	2	0	4	43	3	1	47	2	0	25	27
+30 mins.	0	5	7	12	4	1	0	5	26	2	0	28	1	0	18	19
+45 mins.	0	2	7	9	3	2	0	5	46	2	1	49	2	0	33	35
Total Volume	0	22	29	51	10	10	0	20	152	10	2	164	7	0	100	107
% App. Total	0	43.1	56.9		50	50	0		92.7	6.1	1.2		6.5	0	93.5	

Accurate Counts

978-664-2565

PHF	.000	.611	.906	.797	.625	.500	.000	.833	.826	.833	.500	.837	.875	.000	.758	.764
Cars	0	21	21	42	9	10	0	19	131	8	2	141	4	0	86	90
% Cars	0	95.5	72.4	82.4	90	100	0	95	86.2	80	100	86	57.1	0	86	84.1
Trucks	0	1	8	9	1	0	0	1	21	2	0	23	3	0	14	17
% Trucks	0	4.5	27.6	17.6	10	0	0	5	13.8	20	0	14	42.9	0	14	15.9



Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 5

Groups Printed- Cars

	Tide St From North			Driveway From East			Tide St From South			Northern Ave From West			Int. Total	
	Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM		0	8	4	1	5	0	30	4	0	1	0	21	74
04:15 PM		0	6	3	2	2	0	33	3	0	1	0	20	70
04:30 PM		0	5	7	4	1	0	37	2	1	1	0	17	75
04:45 PM		0	2	7	2	2	0	20	1	0	1	0	28	63
Total		0	21	21	9	10	0	120	10	1	4	0	86	282
05:00 PM		0	5	4	1	2	0	41	2	1	1	0	16	73
05:15 PM		0	8	3	3	0	0	26	1	0	3	0	23	67
05:30 PM		0	4	2	3	3	0	27	4	0	3	0	12	58
05:45 PM		0	10	5	0	0	0	21	0	0	2	0	11	49
Total		0	27	14	7	5	0	115	7	1	9	0	62	247
Grand Total		0	48	35	16	15	0	235	17	2	13	0	148	529
Apprch %		0	57.8	42.2	51.6	48.4	0	92.5	6.7	0.8	8.1	0	91.9	
Total %		0	9.1	6.6	3	2.8	0	44.4	3.2	0.4	2.5	0	28	

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 6

	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

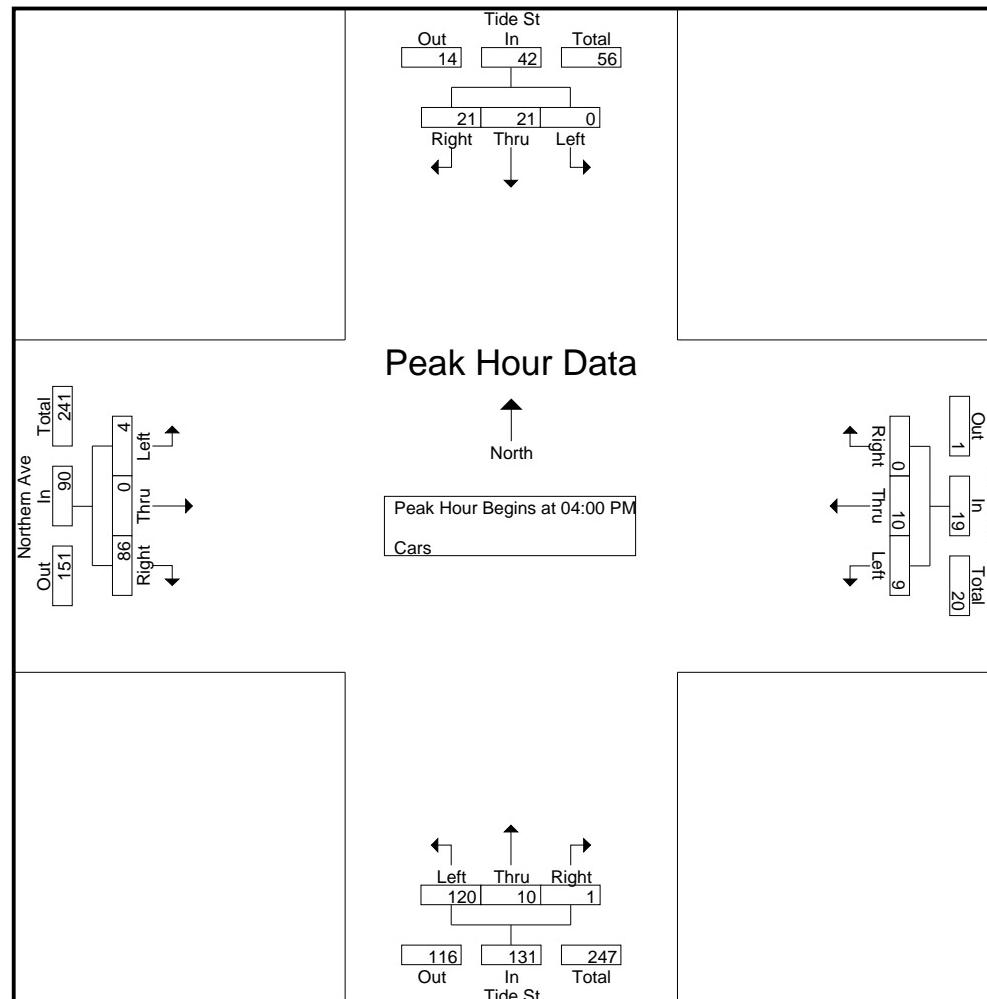
04:00 PM	0	8	4	12	1	5	0	6	30	4	0	34	1	0	21	22	74
04:15 PM	0	6	3	9	2	2	0	4	33	3	0	36	1	0	20	21	70
04:30 PM	0	5	7	12	4	1	0	5	37	2	1	40	1	0	17	18	75
04:45 PM	0	2	7	9	2	2	0	4	20	1	0	21	1	0	28	29	63
Total Volume	0	21	21	42	9	10	0	19	120	10	1	131	4	0	86	90	282
% App. Total	0	50	50		47.4	52.6	0		91.6	7.6	0.8		4.4	0	95.6		
PHF	.000	.656	.750	.875	.563	.500	.000	.792	.811	.625	.250	.819	1.00	.000	.768	.776	.940

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 7



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

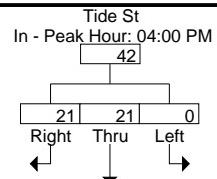
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	0	8	4	12	1	5	0	6	33	3	0	36	1	0	21	22
+15 mins.	0	6	3	9	2	2	0	4	37	2	1	40	1	0	20	21
+30 mins.	0	5	7	12	4	1	0	5	20	1	0	21	1	0	17	18
+45 mins.	0	2	7	9	2	2	0	4	41	2	1	44	1	0	28	29
Total Volume	0	21	21	42	9	10	0	19	131	8	2	141	4	0	86	90
% App. Total	0	50	50		47.4	52.6	0		92.9	5.7	1.4		4.4	0	95.6	

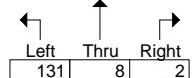
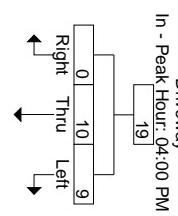
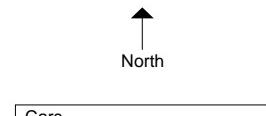
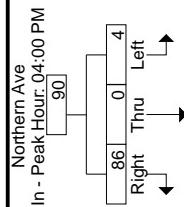
Accurate Counts

978-664-2565

PHF	.000	.656	.750	.875	.563	.500	.000	.792	.799	.667	.500	.801	1.000	.000	.768	.776
-----	------	------	------	------	------	------	------	------	------	------	------	------	-------	------	------	------



Peak Hour Data



In - Peak Hour: 04:15 PM
Tide St

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 9

Groups Printed- Trucks

	Tide St From North			Driveway From East			Tide St From South			Northern Ave From West			Int. Total	
	Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM		0	1	3	0	0	0	4	0	0	1	0	3	12
04:15 PM		0	0	5	0	0	0	4	0	0	1	0	5	15
04:30 PM		0	0	0	0	0	0	6	1	0	0	0	1	8
04:45 PM		0	0	0	1	0	0	6	1	0	1	0	5	14
Total		0	1	8	1	0	0	20	2	0	3	0	14	49
05:00 PM		0	0	0	0	0	0	5	0	0	1	0	2	8
05:15 PM		0	1	2	0	0	0	5	0	0	1	0	2	11
05:30 PM		0	0	1	0	0	0	7	0	0	0	0	6	14
05:45 PM		0	1	1	0	0	0	3	0	0	0	0	5	10
Total		0	2	4	0	0	0	20	0	0	2	0	15	43
Grand Total		0	3	12	1	0	0	40	2	0	5	0	29	92
Apprch %		0	20	80	100	0	0	95.2	4.8	0	14.7	0	85.3	
Total %		0	3.3	13	1.1	0	0	43.5	2.2	0	5.4	0	31.5	

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 10

	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

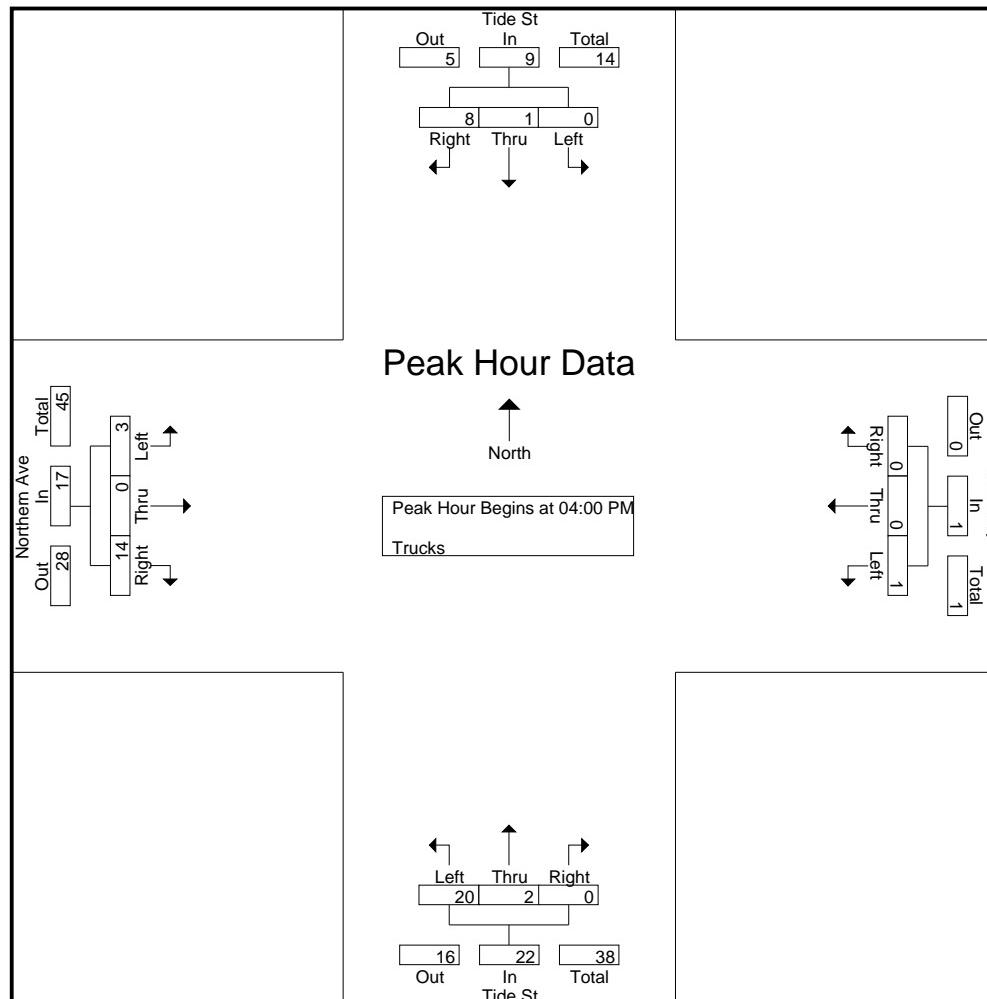
04:00 PM	0	1	3	4	0	0	0	0	4	0	0	4	1	0	3	4	12
04:15 PM	0	0	5	5	0	0	0	0	4	0	0	4	1	0	5	6	15
04:30 PM	0	0	0	0	0	0	0	0	6	1	0	7	0	0	1	1	8
04:45 PM	0	0	0	0	1	0	0	1	6	1	0	7	1	0	5	6	14
Total Volume	0	1	8	9	1	0	0	1	20	2	0	22	3	0	14	17	49
% App. Total	0	11.1	88.9		100	0	0		90.9	9.1	0		17.6	0	82.4		
PHF	.000	.250	.400	.450	.250	.000	.000	.250	.833	.500	.000	.786	.750	.000	.700	.708	.817

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 11



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

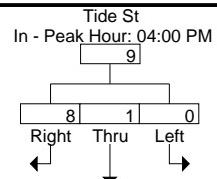
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:30 PM				04:45 PM			
+0 mins.	0	1	3	4	0	0	0	0	6	1	0	7	1	0	5	6
+15 mins.	0	0	5	5	0	0	0	0	6	1	0	7	1	0	2	3
+30 mins.	0	0	0	0	0	0	0	0	5	0	0	5	1	0	2	3
+45 mins.	0	0	0	0	1	0	0	1	5	0	0	5	0	0	6	6
Total Volume	0	1	8	9	1	0	0	1	22	2	0	24	3	0	15	18
% App. Total	0	11.1	88.9		100	0	0		91.7	8.3	0		16.7	0	83.3	

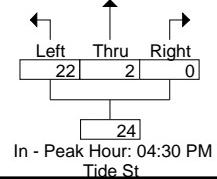
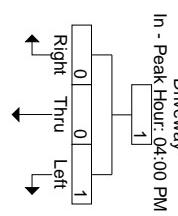
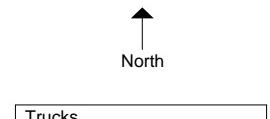
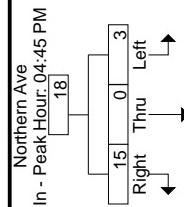
Accurate Counts

978-664-2565

PHF	.000	.250	.400	.450	.250	.000	.000	.250	.917	.500	.000	.857	.750	.000	.625	.750
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Peak Hour Data



Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 13

Groups Printed- Bikes Peds

	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West							
	Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Excl. Total	Incl. Total	Int. Total
04:00 PM		0	0	0	8	0	0	0	2	0	0	0	39	0	0	0	27	76	0	76
04:15 PM		0	0	0	9	0	0	0	7	0	0	0	19	0	0	0	11	46	0	46
04:30 PM		0	0	0	7	0	0	0	4	0	0	0	22	0	0	0	14	47	0	47
04:45 PM		0	0	0	5	0	0	0	3	0	0	0	23	0	0	0	18	49	0	49
Total		0	0	0	29	0	0	0	16	0	0	0	103	0	0	0	70	218	0	218
05:00 PM		0	0	0	24	0	0	0	15	1	0	0	28	0	0	0	15	82	1	83
05:15 PM		0	0	0	16	0	0	0	9	0	0	0	16	0	0	0	9	50	0	50
05:30 PM		0	0	0	15	1	0	0	10	0	0	0	23	0	0	1	16	64	2	66
05:45 PM		0	0	0	3	0	0	0	1	0	0	1	14	0	0	0	5	23	1	24
Total		0	0	0	58	1	0	0	35	1	0	1	81	0	0	1	45	219	4	223
Grand Total		0	0	0	87	1	0	0	51	1	0	1	184	0	0	1	115	437	4	441
Apprch %		0	0	0		100	0	0		50	0	50		0	0	100				
Total %		0	0	0		25	0	0		25	0	25		0	0	25		99.1	0.9	

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 14

	Tide St From North				Driveway From East				Tide St From South				Northern Ave From West				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM

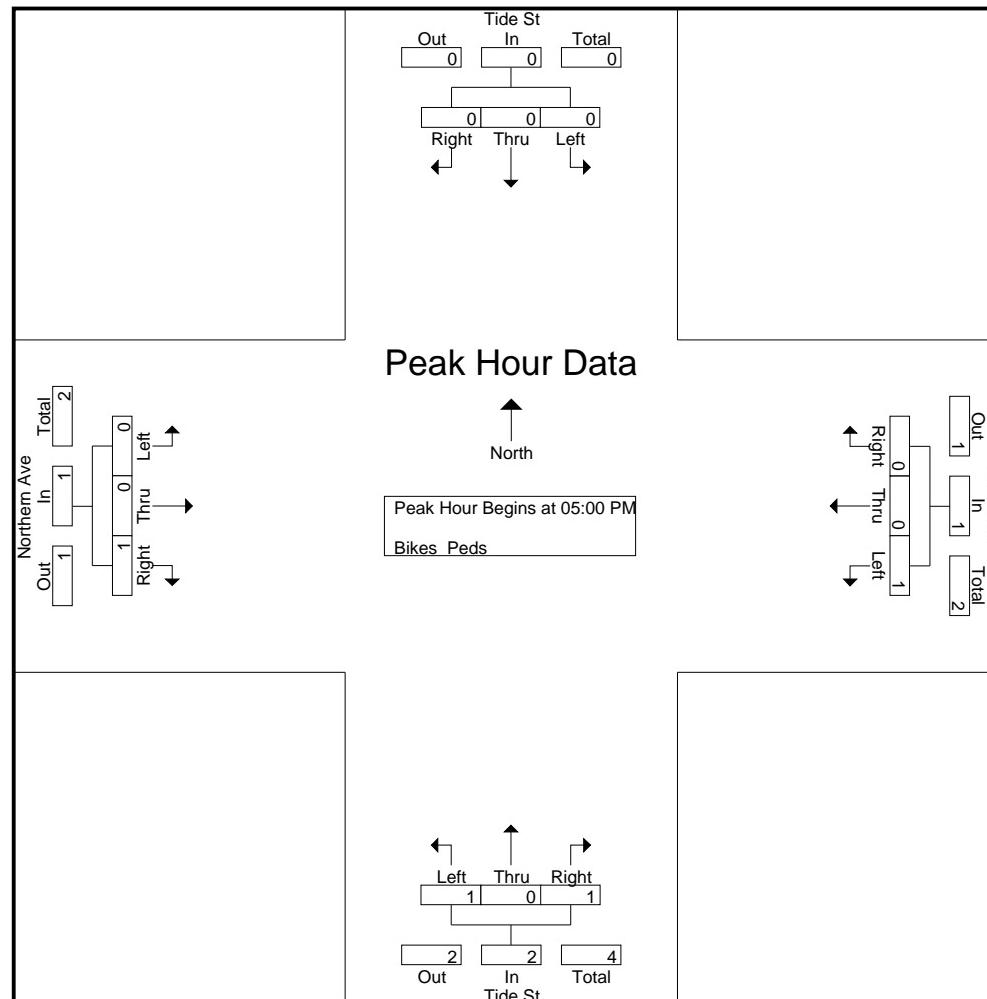
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Total Volume	0	0	0	0	1	0	0	1	1	0	1	2	0	0	1	1	4
% App. Total	0	0	0		100	0	0		50	0	50		0	0	100		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.250	.000	.250	.500	.000	.000	.250	.250	.500

Accurate Counts

978-664-2565

N/S Street : Tide Street
 E/W Street : Northern Ave / Driveway
 City/State : Boston, MA
 Weather : Clear

File Name : 17173002
 Site Code : 17173002
 Start Date : 1/2/2018
 Page No : 15



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

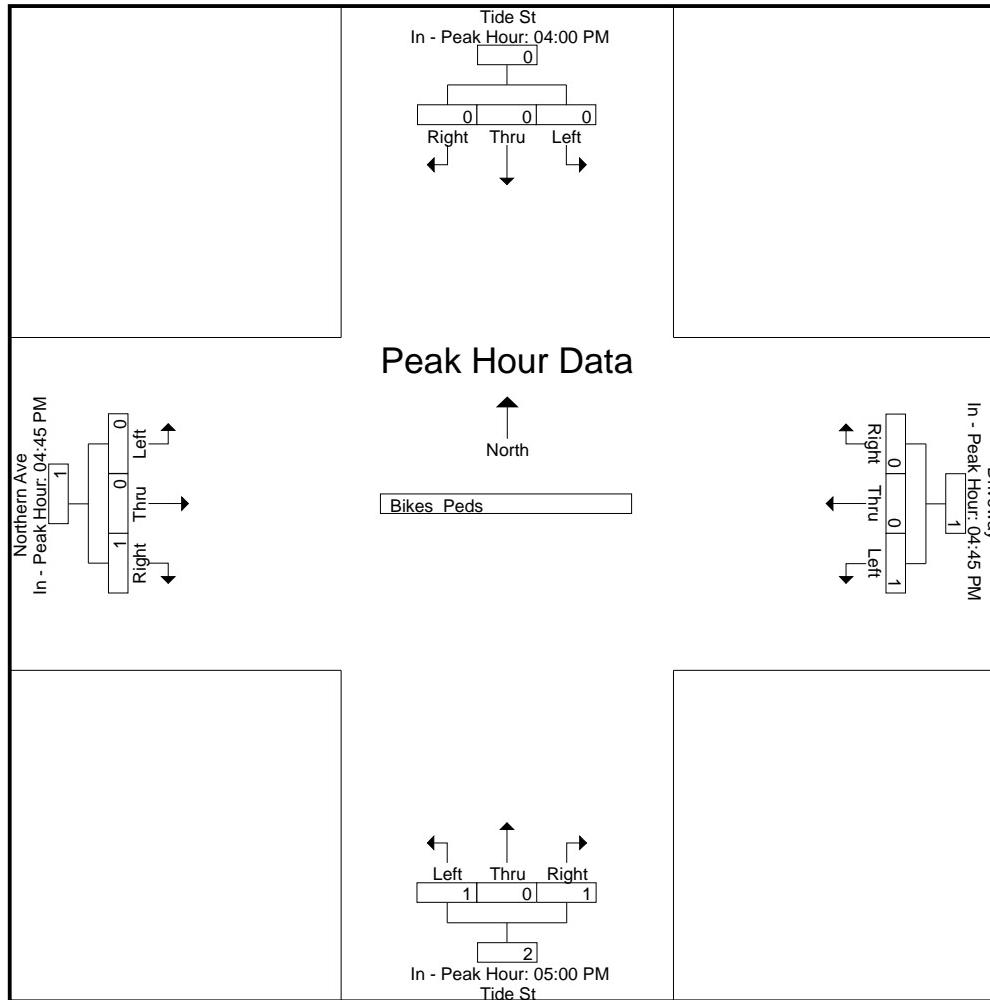
Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				05:00 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	0	0	1	0	0	1	1	0	0	1	1
Total Volume	0	0	0	0	1	0	0	1	1	0	1	2	0	0	1	1
% App. Total	0	0	0		100	0	0		50	0	50		0	0	100	

Accurate Counts

978-664-2565

PHF | .000 .000 .000 .000 .250 .000 .250 .000 .250 .250 .000 .250 .500 .000 .000 .250 .250



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 1

Groups Printed- Cars - Trucks

	FID Kennedy Dr From East		Tide St From South		FID Kennedy Dr From West		Int. Total	
	Start Time	Left	Thru	Left	Right	Thru	Right	
07:00 AM		7	5	3	14	1	1	31
07:15 AM		2	0	0	6	0	1	9
07:30 AM		5	2	2	7	2	3	21
07:45 AM		3	4	1	6	1	0	15
Total		17	11	6	33	4	5	76
08:00 AM		4	1	2	6	2	4	19
08:15 AM		4	1	0	13	5	2	25
08:30 AM		14	0	2	25	0	2	43
08:45 AM		3	0	1	10	1	1	16
Total		25	2	5	54	8	9	103
Grand Total		42	13	11	87	12	14	179
Apprch %		76.4	23.6	11.2	88.8	46.2	53.8	
Total %		23.5	7.3	6.1	48.6	6.7	7.8	
Cars		37	9	8	87	10	11	162
% Cars		88.1	69.2	72.7	100	83.3	78.6	90.5
Trucks		5	4	3	0	2	3	17
% Trucks		11.9	30.8	27.3	0	16.7	21.4	9.5

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

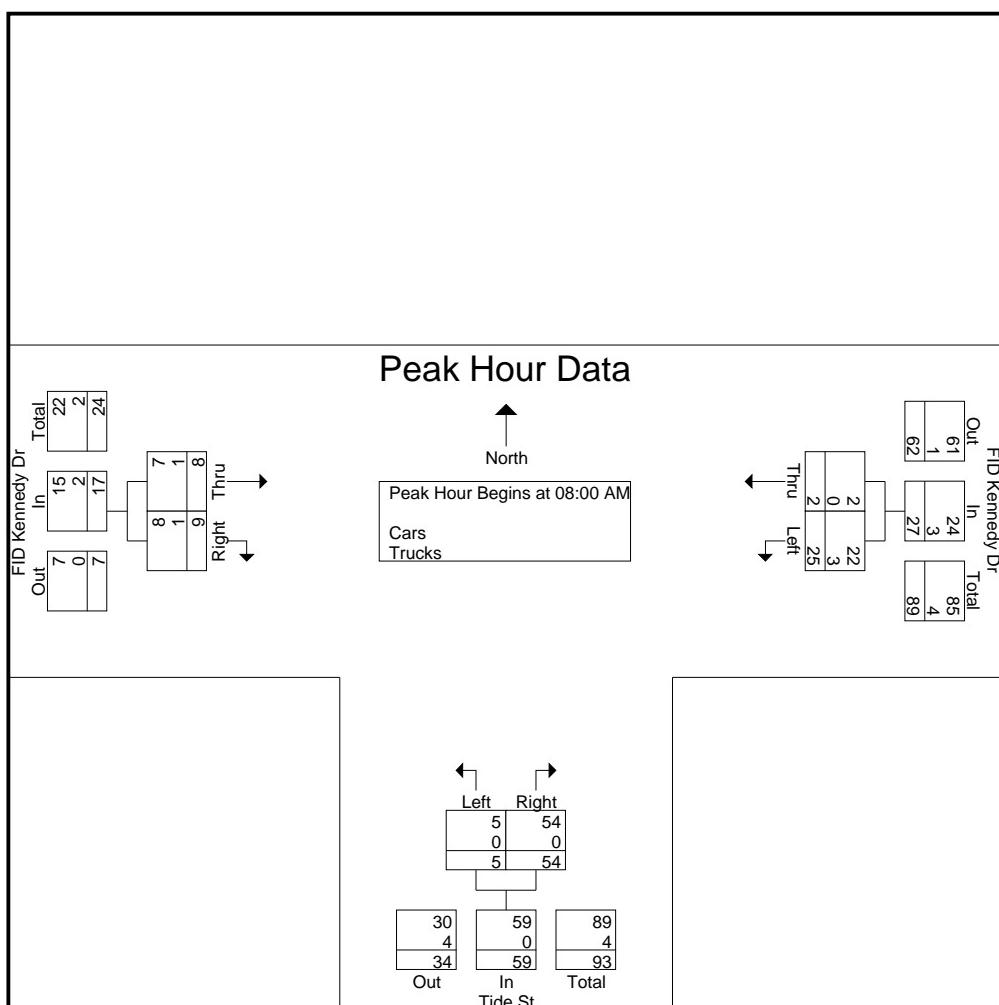
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 2

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

08:00 AM	4	1	5	2	6	8	2	4	6	19
08:15 AM	4	1	5	0	13	13	5	2	7	25
08:30 AM	14	0	14	2	25	27	0	2	2	43
08:45 AM	3	0	3	1	10	11	1	1	2	16
Total Volume	25	2	27	5	54	59	8	9	17	103
% App. Total	92.6	7.4		8.5	91.5		47.1	52.9		
PHF	.446	.500	.482	.625	.540	.546	.400	.563	.607	.599
Cars	22	2	24	5	54	59	7	8	15	98
% Cars	88.0	100	88.9	100	100	100	87.5	88.9	88.2	95.1
Trucks	3	0	3	0	0	0	1	1	2	5
% Trucks	12.0	0	11.1	0	0	0	12.5	11.1	11.8	4.9



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

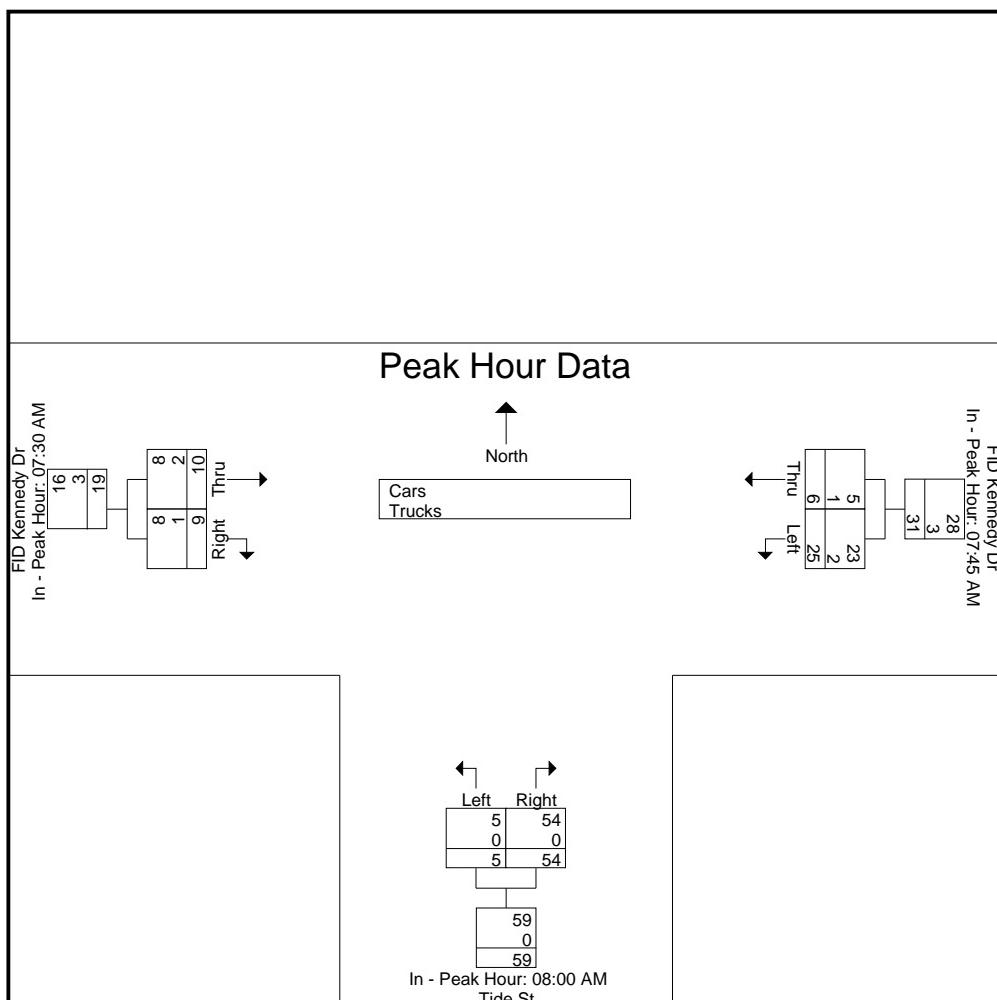
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 3

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			08:00 AM			07:30 AM		
+0 mins.	3	4	7	2	6	8	2	3	5
+15 mins.	4	1	5	0	13	13	1	0	1
+30 mins.	4	1	5	2	25	27	2	4	6
+45 mins.	14	0	14	1	10	11	5	2	7
Total Volume	25	6	31	5	54	59	10	9	19
% App. Total	80.6	19.4		8.5	91.5		52.6	47.4	
PHF	.446	.375	.554	.625	.540	.546	.500	.563	.679
Cars	23	5	28	5	54	59	8	8	16
% Cars	92	83.3	90.3	100	100	100	80	88.9	84.2
Trucks	2	1	3	0	0	0	2	1	3
% Trucks	8	16.7	9.7	0	0	0	20	11.1	15.8



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 4

Groups Printed- Cars

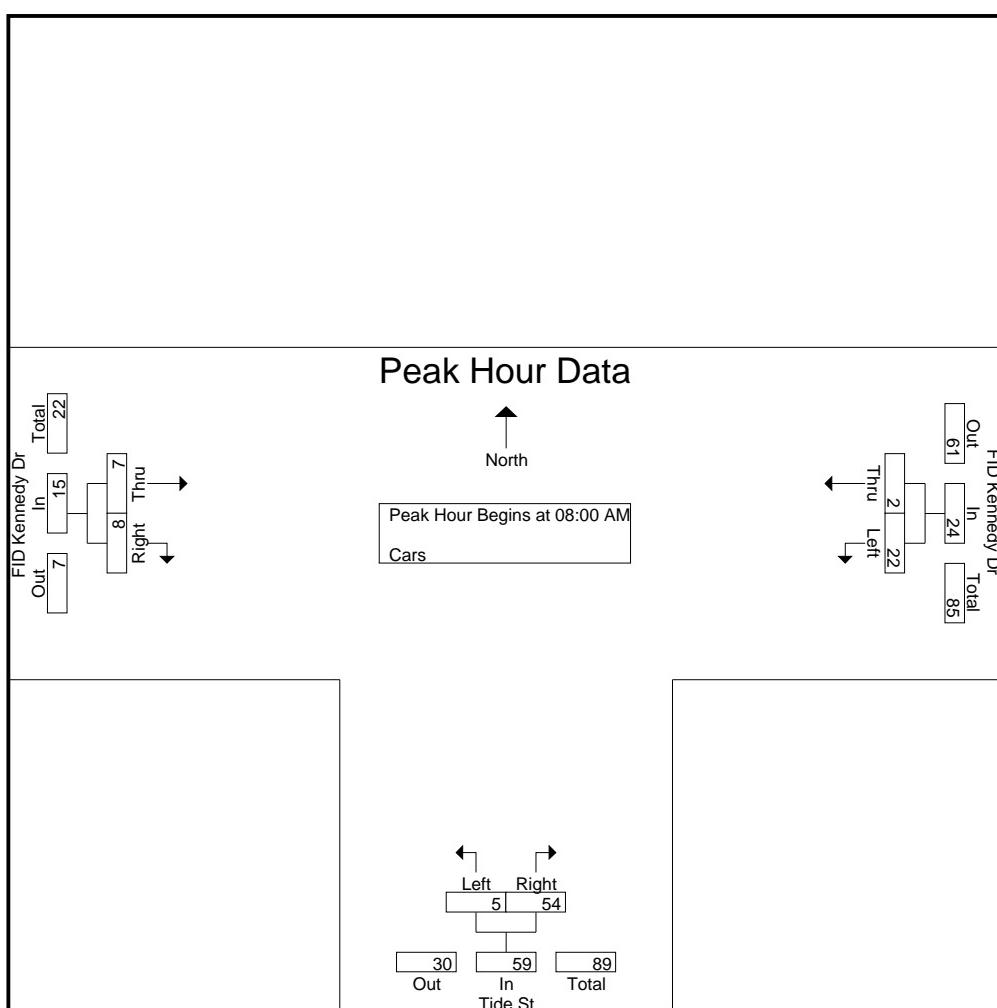
	FID Kennedy Dr From East		Tide St From South		FID Kennedy Dr From West		Int. Total	
	Start Time	Left	Thru	Left	Right	Thru	Right	
07:00 AM		7	2	1	14	1	0	25
07:15 AM		1	0	0	6	0	1	8
07:30 AM		4	2	1	7	1	2	17
07:45 AM		3	3	1	6	1	0	14
Total		15	7	3	33	3	3	64
08:00 AM		3	1	2	6	1	4	17
08:15 AM		4	1	0	13	5	2	25
08:30 AM		13	0	2	25	0	1	41
08:45 AM		2	0	1	10	1	1	15
Total		22	2	5	54	7	8	98
Grand Total		37	9	8	87	10	11	162
Apprch %		80.4	19.6	8.4	91.6	47.6	52.4	
Total %		22.8	5.6	4.9	53.7	6.2	6.8	

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 5

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	3	1	4	2	6	8	1	4	5	17
08:15 AM	4	1	5	0	13	13	5	2	7	25
08:30 AM	13	0	13	2	25	27	0	1	1	41
08:45 AM	2	0	2	1	10	11	1	1	2	15
Total Volume	22	2	24	5	54	59	7	8	15	98
% App. Total	91.7	8.3		8.5	91.5		46.7	53.3		
PHF	.423	.500	.462	.625	.540	.546	.350	.500	.536	.598



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

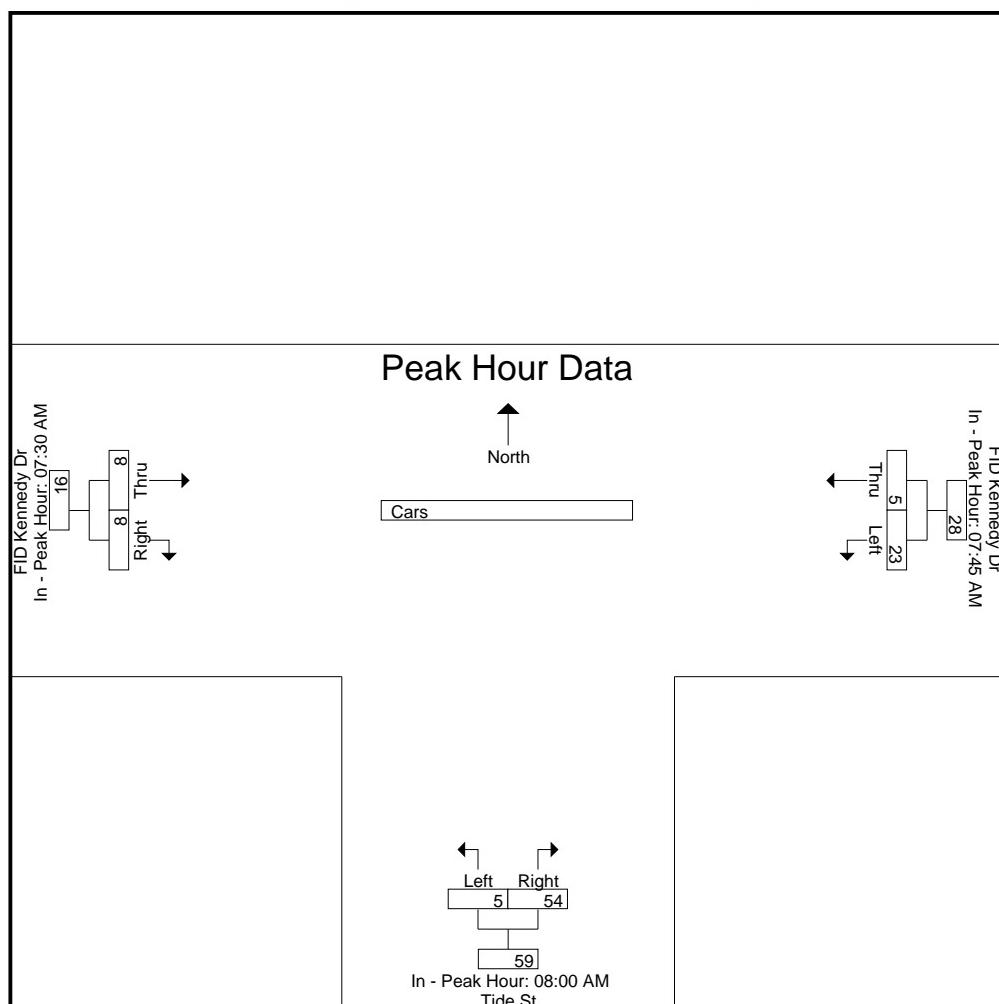
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 6

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM		08:00 AM		07:30 AM	
+0 mins.	3	3	6	2	6	8
+15 mins.	3	1	4	0	13	13
+30 mins.	4	1	5	2	25	27
+45 mins.	13	0	13	1	10	11
Total Volume	23	5	28	5	54	59
% App. Total	82.1	17.9		8.5	91.5	
PHF	.442	.417	.538	.625	.540	.546



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 7

Groups Printed- Trucks

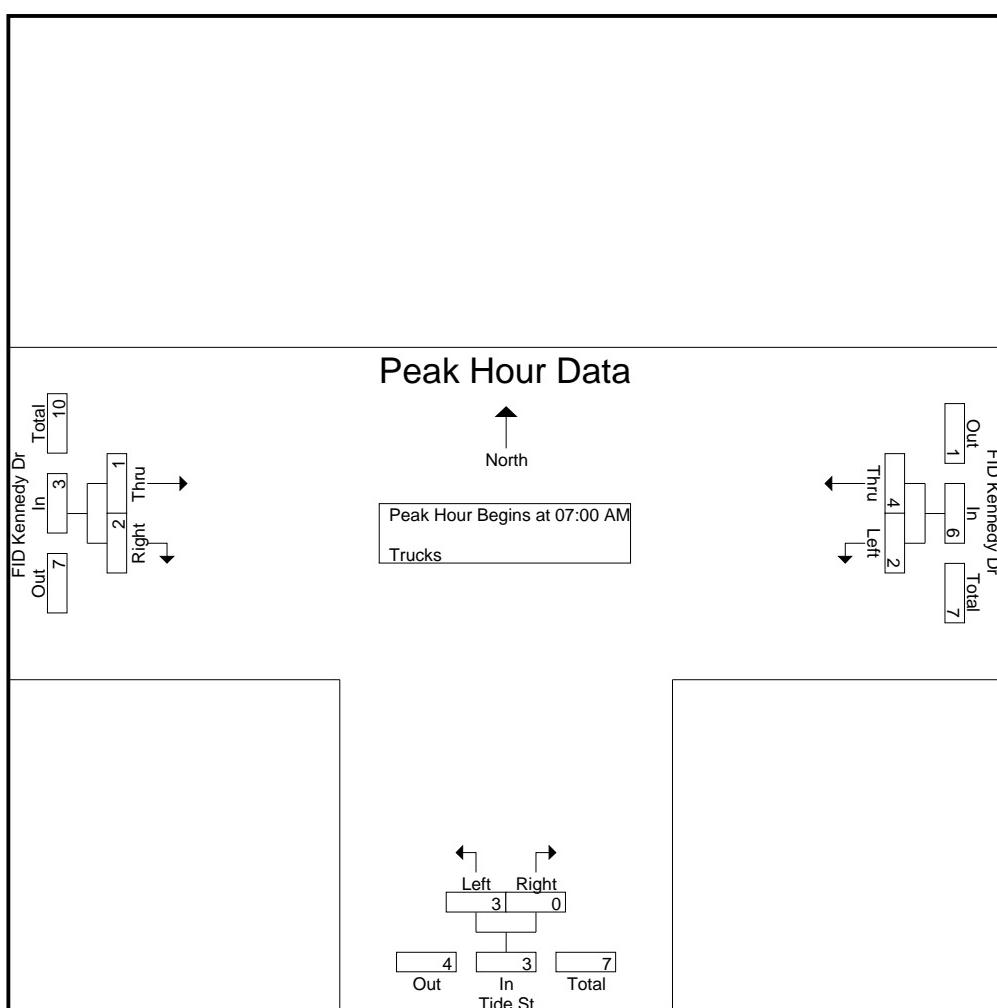
	FID Kennedy Dr From East		Tide St From South		FID Kennedy Dr From West		Int. Total	
	Start Time	Left	Thru	Left	Right	Thru	Right	
07:00 AM		0	3	2	0	0	1	6
07:15 AM		1	0	0	0	0	0	1
07:30 AM		1	0	1	0	1	1	4
07:45 AM		0	1	0	0	0	0	1
Total		2	4	3	0	1	2	12
08:00 AM		1	0	0	0	1	0	2
08:15 AM		0	0	0	0	0	0	0
08:30 AM		1	0	0	0	0	1	2
08:45 AM		1	0	0	0	0	0	1
Total		3	0	0	0	1	1	5
Grand Total		5	4	3	0	2	3	17
Apprch %		55.6	44.4	100	0	40	60	
Total %		29.4	23.5	17.6	0	11.8	17.6	

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 8

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	3	3	2	0	2	0	1	1	6
07:15 AM	1	0	1	0	0	0	0	0	0	1
07:30 AM	1	0	1	1	0	1	1	1	2	4
07:45 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	2	4	6	3	0	3	1	2	3	12
% App. Total	33.3	66.7		100	0		33.3	66.7		
PHF	.500	.333	.500	.375	.000	.375	.250	.500	.375	.500



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

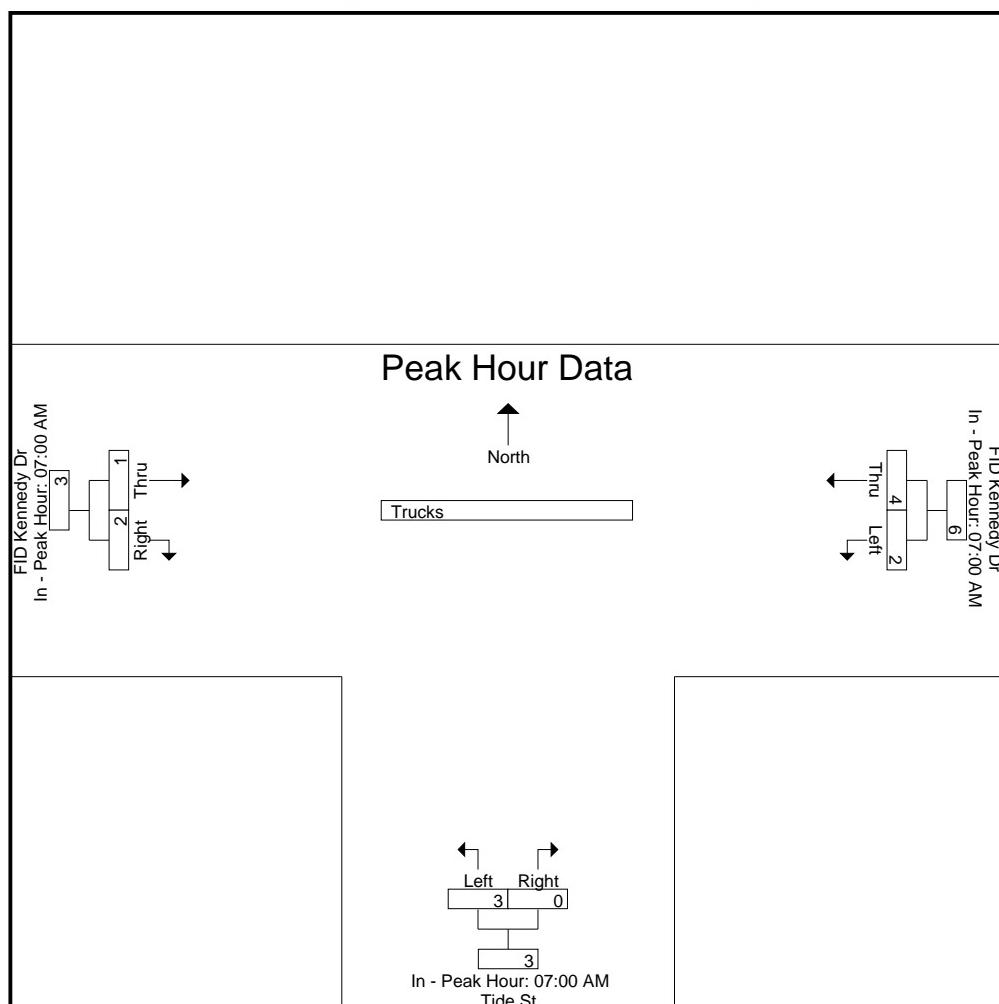
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 9

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM		07:00 AM		07:00 AM	
+0 mins.	0	3	3	2	0	2
+15 mins.	1	0	1	0	0	0
+30 mins.	1	0	1	1	0	1
+45 mins.	0	1	1	0	0	0
Total Volume	2	4	6	3	0	3
% App. Total	33.3	66.7		100	0	
PHF	.500	.333	.500	.375	.000	.375



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 10

Groups Printed- Bikes Peds

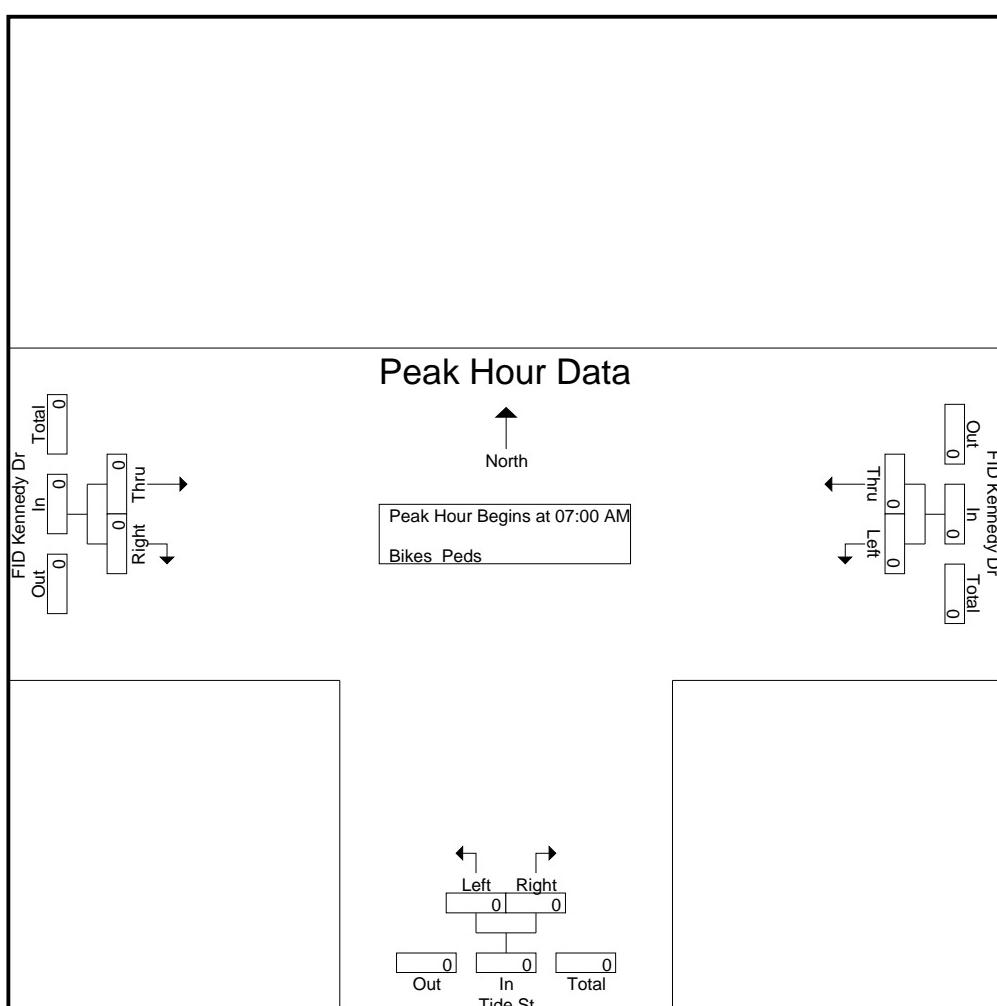
	FID Kennedy Dr From East			Tide St From South			FID Kennedy Dr From West						
	Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Excl. Total	Incl. Total	Int. Total
07:00 AM		0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM		0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM		0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM		0	0	0	0	0	2	0	0	0	2	0	2
Total		0	0	0	0	0	2	0	0	0	2	0	2
08:00 AM		0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM		0	0	0	0	0	1	0	0	0	1	0	1
08:30 AM		0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM		0	0	0	0	0	1	0	0	0	1	0	1
Total		0	0	0	0	0	2	0	0	0	2	0	2
Grand Total		0	0	0	0	0	4	0	0	0	4	0	4
Apprch %		0	0		0	0		0	0				
Total %											100	0	

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 11

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

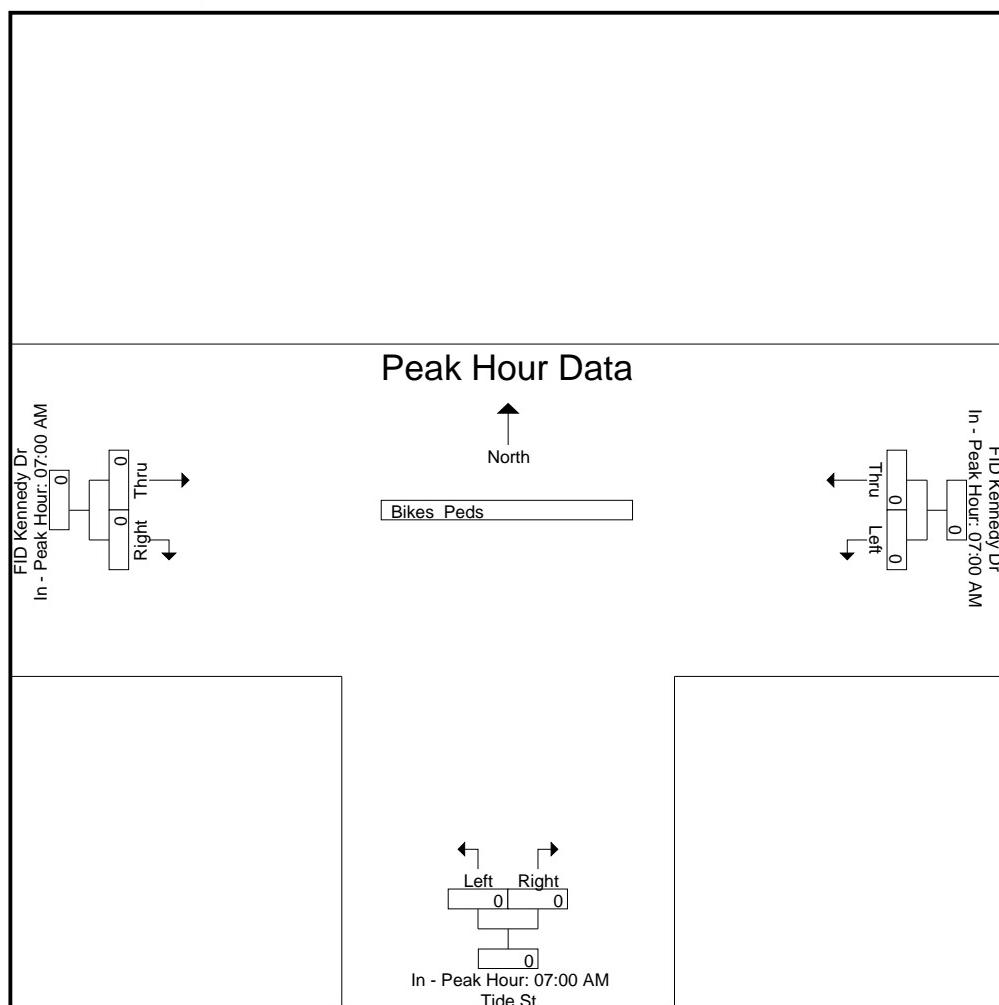
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/3/2018
 Page No : 12

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM		07:00 AM		07:00 AM	
+0 mins.	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0
% App. Total	0	0		0	0	0
PHF	.000	.000	.000	.000	.000	.000



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 1

Groups Printed- Cars - Trucks

	FID Kennedy Dr From East		Tide St From South		FID Kennedy Dr From West		Int. Total	
	Start Time	Left	Thru	Left	Right	Thru	Right	
04:00 PM		10	2	2	3	1	7	25
04:15 PM		11	4	2	2	0	5	24
04:30 PM		9	2	1	2	0	3	17
04:45 PM		6	0	2	1	1	0	10
Total		36	8	7	8	2	15	76
05:00 PM		6	0	3	1	0	2	12
05:15 PM		9	0	3	2	0	6	20
05:30 PM		7	1	1	5	0	3	17
05:45 PM		10	1	2	1	0	2	16
Total		32	2	9	9	0	13	65
Grand Total		68	10	16	17	2	28	141
Apprch %		87.2	12.8	48.5	51.5	6.7	93.3	
Total %		48.2	7.1	11.3	12.1	1.4	19.9	
Cars		66	9	10	17	2	14	118
% Cars		97.1	90	62.5	100	100	50	83.7
Trucks		2	1	6	0	0	14	23
% Trucks		2.9	10	37.5	0	0	50	16.3

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

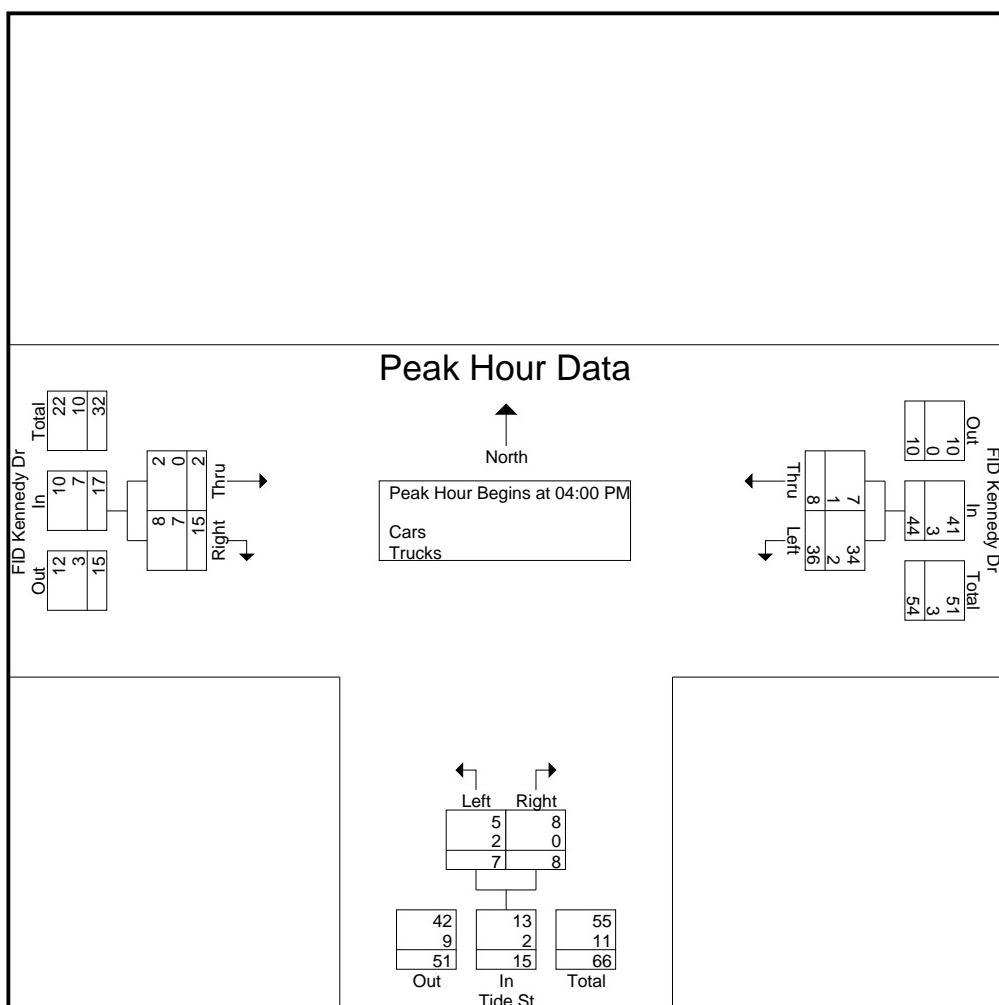
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 2

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	10	2	12	2	3	5	1	7	8	25
04:15 PM	11	4	15	2	2	4	0	5	5	24
04:30 PM	9	2	11	1	2	3	0	3	3	17
04:45 PM	6	0	6	2	1	3	1	0	1	10
Total Volume	36	8	44	7	8	15	2	15	17	76
% App. Total	81.8	18.2		46.7	53.3		11.8	88.2		
PHF	.818	.500	.733	.875	.667	.750	.500	.536	.531	.760
Cars	34	7	41	5	8	13	2	8	10	64
% Cars	94.4	87.5	93.2	71.4	100	86.7	100	53.3	58.8	84.2
Trucks	2	1	3	2	0	2	0	7	7	12
% Trucks	5.6	12.5	6.8	28.6	0	13.3	0	46.7	41.2	15.8



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

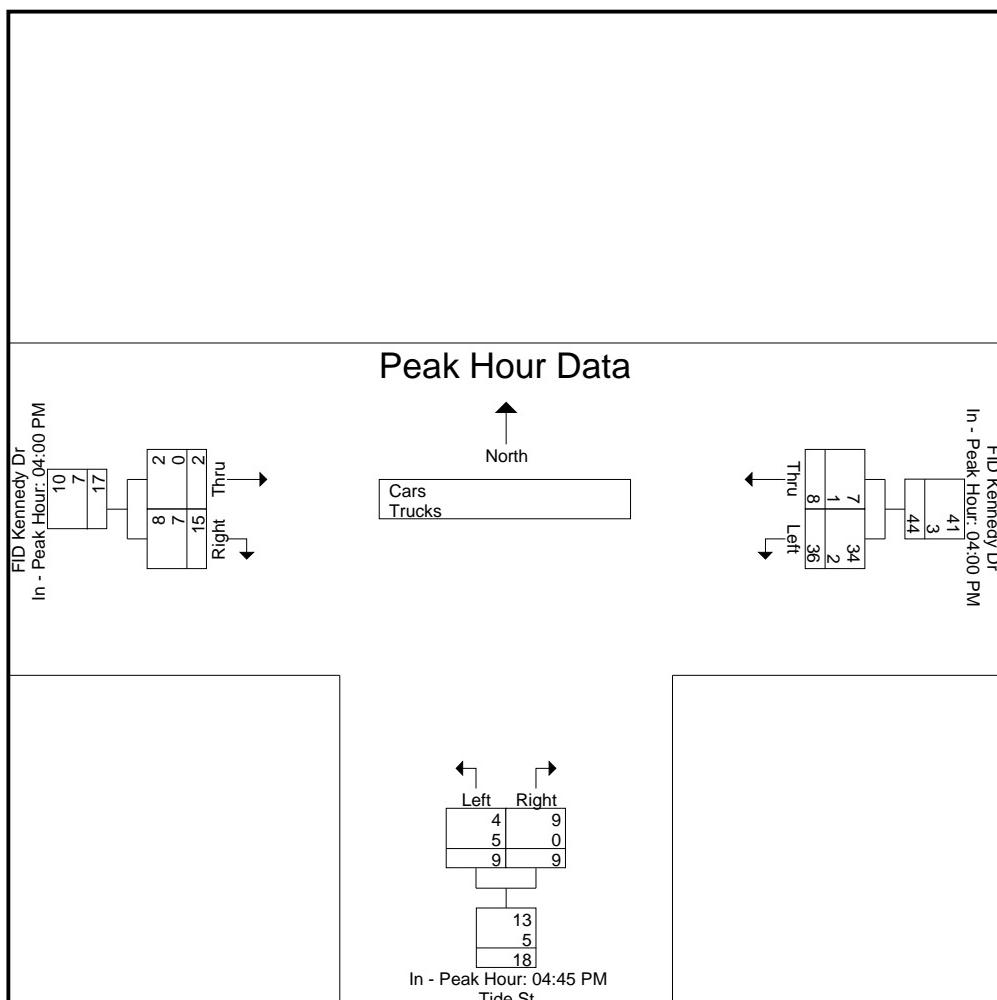
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 3

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			04:00 PM		
+0 mins.	10	2	12	2	1	3	1	7	8
+15 mins.	11	4	15	3	1	4	0	5	5
+30 mins.	9	2	11	3	2	5	0	3	3
+45 mins.	6	0	6	1	5	6	1	0	1
Total Volume	36	8	44	9	9	18	2	15	17
% App. Total	81.8	18.2		50	50		11.8	88.2	
PHF	.818	.500	.733	.750	.450	.750	.500	.536	.531
Cars	34	7	41	4	9	13	2	8	10
% Cars	94.4	87.5	93.2	44.4	100	72.2	100	53.3	58.8
Trucks	2	1	3	5	0	5	0	7	7
% Trucks	5.6	12.5	6.8	55.6	0	27.8	0	46.7	41.2



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 4

Groups Printed- Cars

	FID Kennedy Dr From East		Tide St From South		FID Kennedy Dr From West		Int. Total	
	Start Time	Left	Thru	Left	Right	Thru	Right	
04:00 PM		9	1	2	3	1	4	20
04:15 PM		10	4	2	2	0	1	19
04:30 PM		9	2	0	2	0	3	16
04:45 PM		6	0	1	1	1	0	9
Total		34	7	5	8	2	8	64
05:00 PM		6	0	1	1	0	2	10
05:15 PM		9	0	1	2	0	2	14
05:30 PM		7	1	1	5	0	0	14
05:45 PM		10	1	2	1	0	2	16
Total		32	2	5	9	0	6	54
Grand Total		66	9	10	17	2	14	118
Apprch %		88	12	37	63	12.5	87.5	
Total %		55.9	7.6	8.5	14.4	1.7	11.9	

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

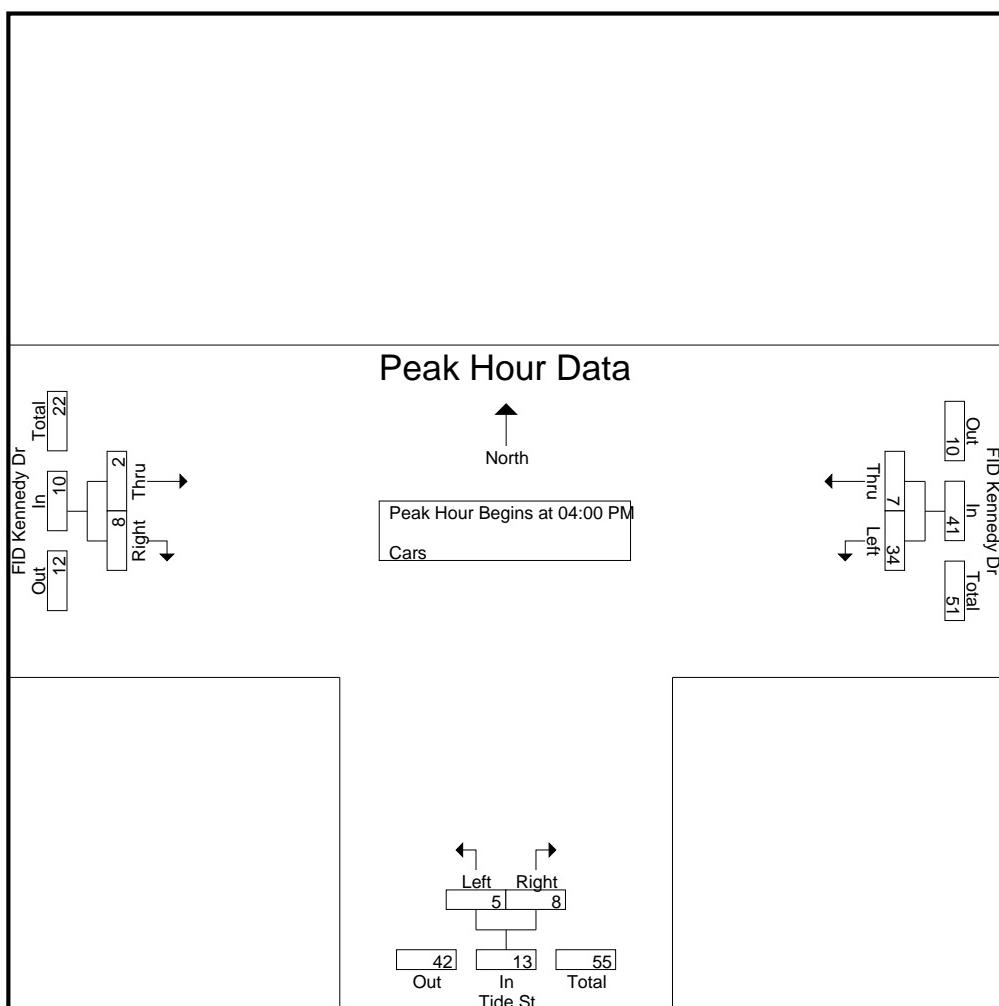
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 5

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	9	1	10	2	3	5	1	4	5	20
04:15 PM	10	4	14	2	2	4	0	1	1	19
04:30 PM	9	2	11	0	2	2	0	3	3	16
04:45 PM	6	0	6	1	1	2	1	0	1	9
Total Volume	34	7	41	5	8	13	2	8	10	64
% App. Total	82.9	17.1		38.5	61.5		20	80		
PHF	.850	.438	.732	.625	.667	.650	.500	.500	.500	.800



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

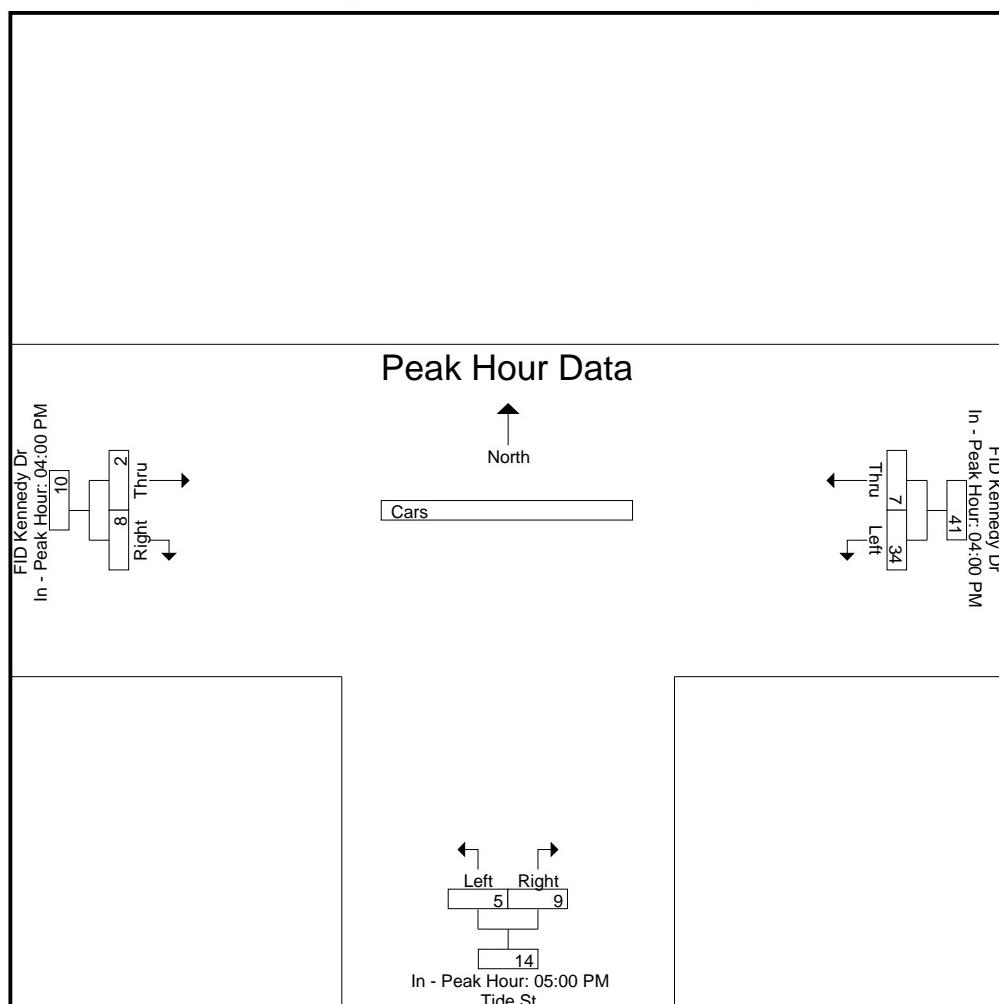
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 6

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM	05:00 PM			04:00 PM		
+0 mins.	9	1	10	1	1	2	1
+15 mins.	10	4	14	1	2	3	0
+30 mins.	9	2	11	1	5	6	0
+45 mins.	6	0	6	2	1	3	1
Total Volume	34	7	41	5	9	14	2
% App. Total	82.9	17.1		35.7	64.3		20
PHF	.850	.438	.732	.625	.450	.583	.500
							.500



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 7

Groups Printed- Trucks

	FID Kennedy Dr From East		Tide St From South		FID Kennedy Dr From West		Int. Total	
	Start Time	Left	Thru	Left	Right	Thru	Right	
04:00 PM		1	1	0	0	0	3	5
04:15 PM		1	0	0	0	0	4	5
04:30 PM		0	0	1	0	0	0	1
04:45 PM		0	0	1	0	0	0	1
Total		2	1	2	0	0	7	12
05:00 PM		0	0	2	0	0	0	2
05:15 PM		0	0	2	0	0	4	6
05:30 PM		0	0	0	0	0	3	3
05:45 PM		0	0	0	0	0	0	0
Total		0	0	4	0	0	7	11
Grand Total		2	1	6	0	0	14	23
Apprch %		66.7	33.3	100	0	0	100	
Total %		8.7	4.3	26.1	0	0	60.9	

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

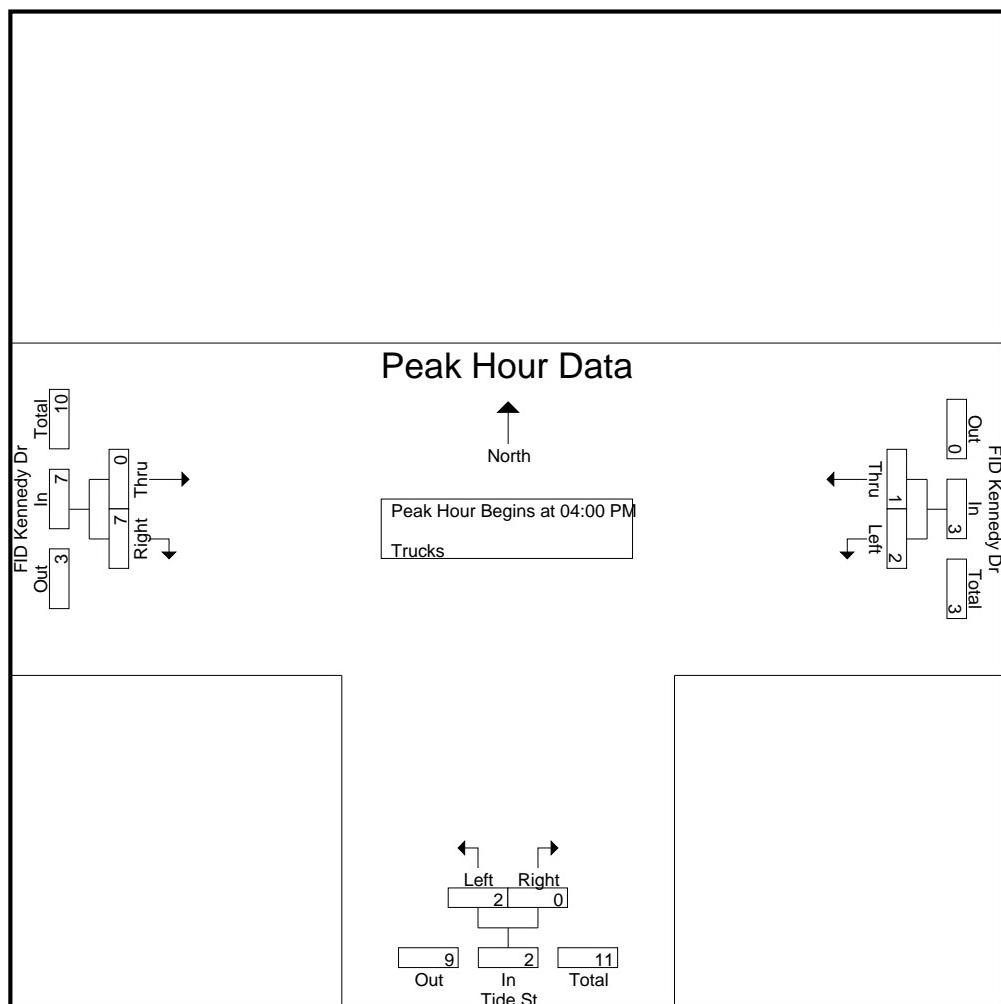
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 8

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	1	1	2	0	0	0	0	3	3	5
04:15 PM	1	0	1	0	0	0	0	4	4	5
04:30 PM	0	0	0	1	0	1	0	0	0	1
04:45 PM	0	0	0	1	0	1	0	0	0	1
Total Volume	2	1	3	2	0	2	0	7	7	12
% App. Total	66.7	33.3		100	0		0	100		
PHF	.500	.250	.375	.500	.000	.500	.000	.438	.438	.600



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

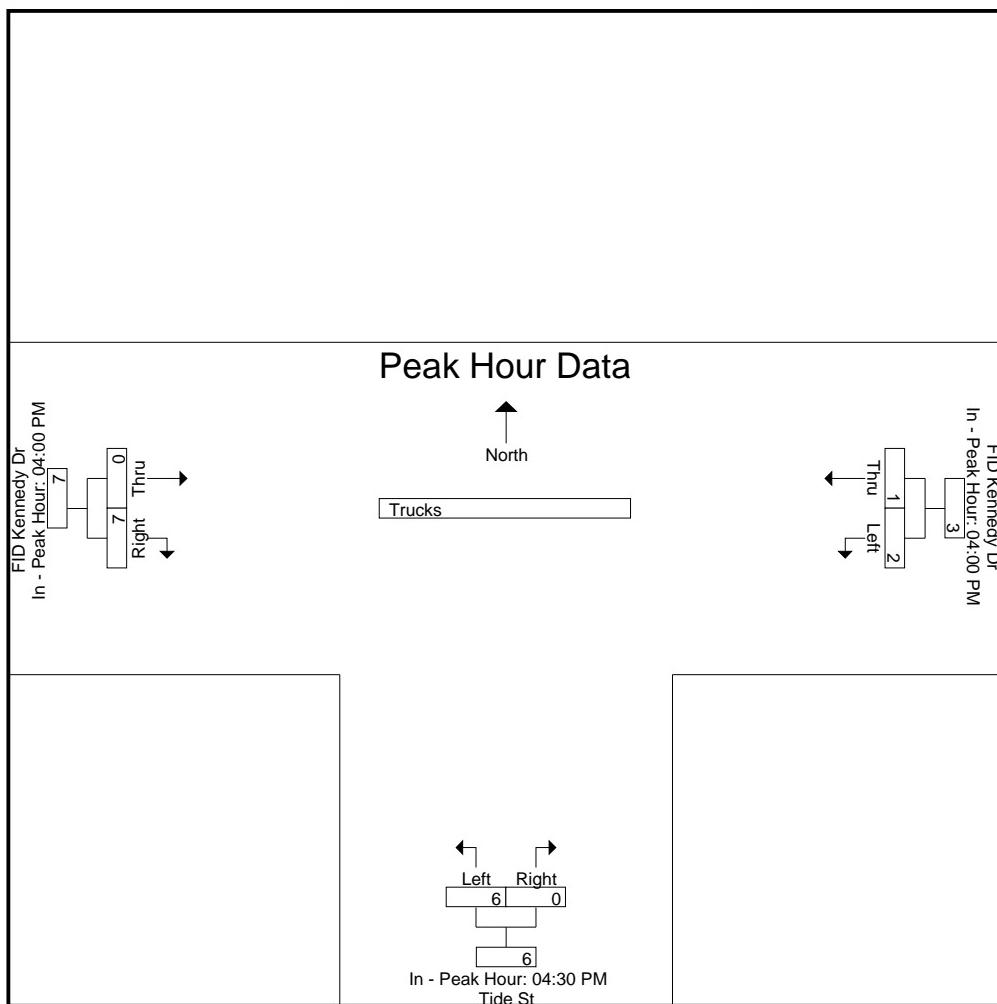
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 9

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM		04:30 PM		04:00 PM			
+0 mins.	1	1	2	1	0	1	0	3
+15 mins.	1	0	1	1	0	1	0	4
+30 mins.	0	0	0	2	0	2	0	0
+45 mins.	0	0	0	2	0	2	0	0
Total Volume	2	1	3	6	0	6	0	7
% App. Total	66.7	33.3		100	0		0	100
PHF	.500	.250	.375	.750	.000	.750	.000	.438
								.438



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 10

Groups Printed- Bikes Peds

	FID Kennedy Dr From East			Tide St From South			FID Kennedy Dr From West						
	Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Excl. Total	Incl. Total	Int. Total
04:00 PM		0	0	1	0	0	0	0	0	0	1	0	1
04:15 PM		0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM		0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM		0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	1	0	0	0	0	0	0	1	0	1
05:00 PM		0	0	0	0	0	1	0	0	0	1	0	1
05:15 PM		0	0	0	0	0	1	0	0	0	1	0	1
05:30 PM		0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM		0	0	1	0	0	0	0	0	0	1	0	1
Total		0	0	1	0	0	2	0	0	0	3	0	3
Grand Total		0	0	2	0	0	2	0	0	0	4	0	4
Apprch %		0	0		0	0		0	0				
Total %											100	0	

Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

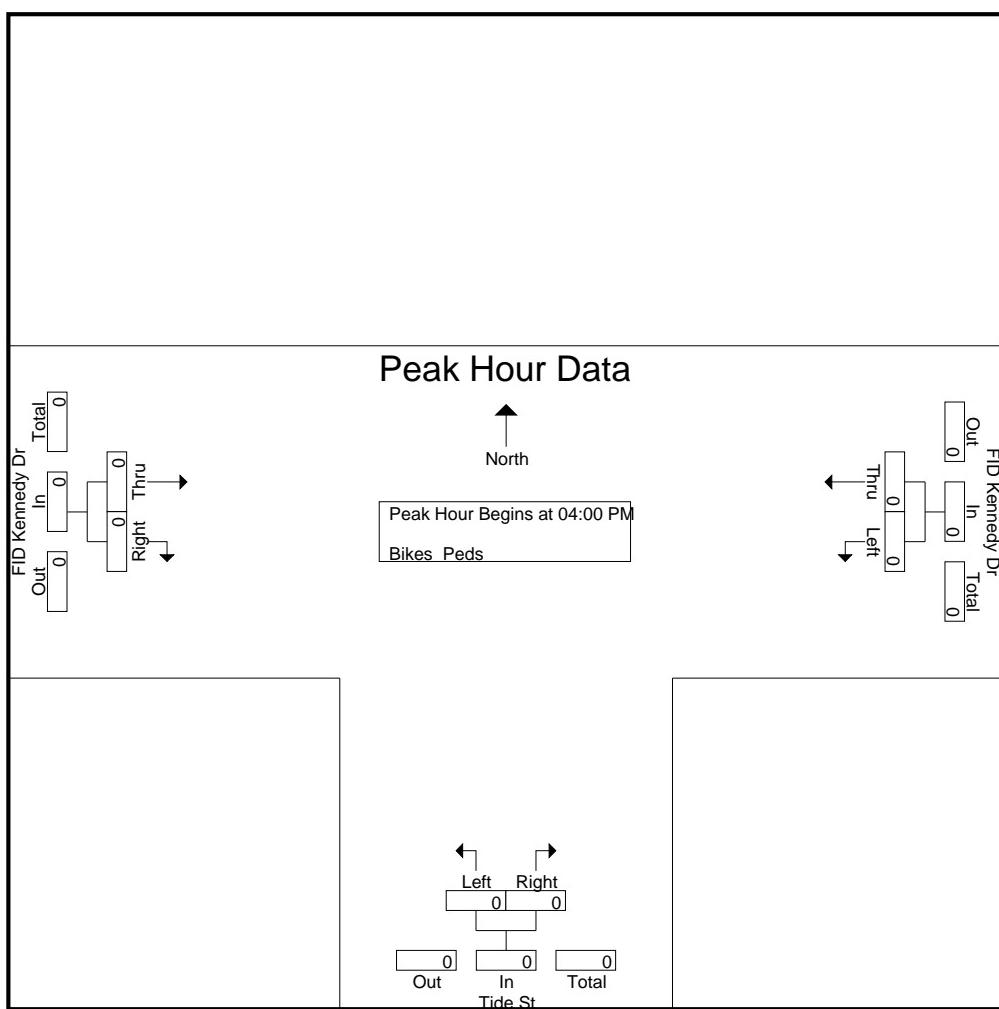
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 11

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000



Accurate Counts
978-664-2565

N/S Street : Tide Street
 E/W Street : FID Kennedy Drive
 City/State : Boston, MA
 Weather : Clear

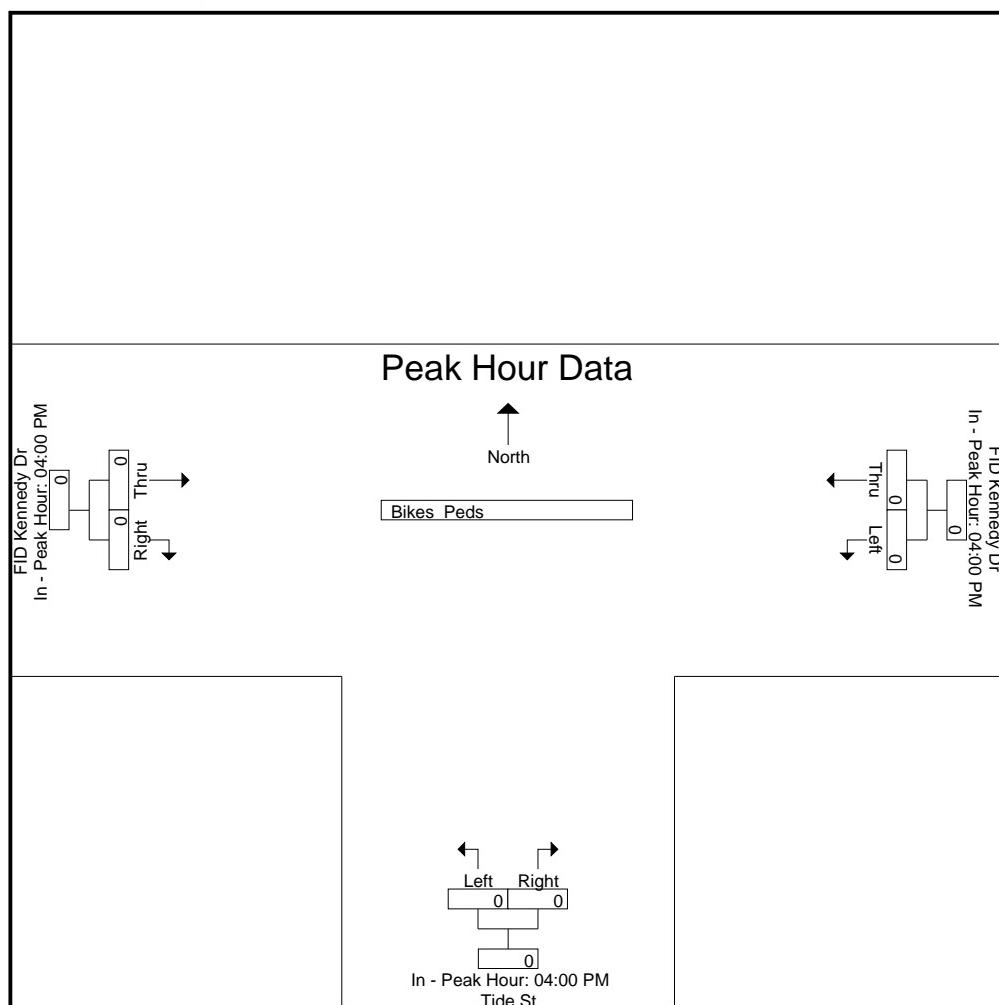
File Name : 17173003
 Site Code : 17173003
 Start Date : 1/2/2018
 Page No : 12

	FID Kennedy Dr			Tide St			FID Kennedy Dr			
	From East			From South			From West			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM		04:00 PM		04:00 PM	
+0 mins.	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0
% App. Total	0	0		0	0	0
PHF	.000	.000	.000	.000	.000	.000



APPENDIX B2 – MassDOT Weekday Seasonal Adjustment Factors

MASSACHUSETTS HIGHWAY DEPARTMENT - STATEWIDE TRAFFIC DATA COLLECTION

2011 WEEKDAY SEASONAL FACTORS *

* Note: These are weekday factors. The average of the factors for the year will not equal 1, as weekend data are not considered.

FACTOR GROUP	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
GROUP 1 - WEST INTERSTATE	0.98	0.93	0.90	0.89	0.90	0.88	0.91	0.90	0.89	0.89	0.93	0.95
Use group 2 for R5, R6, & R0												
GROUP 2 - RURAL MAJOR COLLECTOR (R-5)	1.12	1.12	1.07	0.99	0.91	0.90	0.86	0.86	0.92	0.93	1.01	1.05
GROUP 3A - RECREATIONAL **(1-4) See below	1.26	1.25	1.20	1.06	0.96	0.89	0.76	0.76	0.92	0.99	1.08	1.14
GROUP 3B - RECREATIONAL *** (5) See below	1.22	1.26	1.22	1.06	0.96	0.90	0.72	0.74	0.97	1.02	1.14	1.15
GROUP 4 - I-495 INTERSTATE	1.02	1.00	1.00	0.96	0.92	0.89	0.85	0.83	0.93	0.96	1.01	1.03
GROUP 5 - EAST INTERSTATE	1.04	1.00	0.96	0.93	0.92	0.91	0.91	0.89	0.93	0.93	0.96	1.01
GROUP 6: Use group 6 for U2, U3, U5, U6, U0, R2, & R3												
URBAN ARTERIALS, COLLECTORS & RURAL ARTERIALS (R-2, R-3)	1.03	1.01	0.96	0.92	0.91	0.90	0.92	0.92	0.93	0.92	0.97	0.97
GROUP 7 - I-84 PROXIMITY (STA. 17, 3921)	1.24	1.24	1.15	1.04	0.99	1.00	0.93	0.89	1.05	1.05	1.05	1.12
GROUP 8 - I-295 PROXIMITY (STA. 6590)	1.00	0.99	0.95	0.92	0.94	0.91	0.93	0.92	0.95	0.94	0.97	0.95
GROUP 9 - I-195 PROXIMITY (STA. 7)	1.13	1.05	1.03	0.95	0.89	0.87	0.86	0.79	0.88	0.91	0.99	1.03

RECREATIONAL: (ALL YEARS)

**GROUP 3A:

1. CAPE COD (ALL TOWNS)

2. PLYMOUTH(SOUTH OF RTE.3A)

7014, 7079, 7080, 7090, 7091, 7092, 7093, 7094, 7095, 7096, 7097, 7108, 7178

3. MARTHA'S VINEYARD

4. NANTUCKET

***GROUP 3B:

5. PERMANENTS 2 & 189

1066, 1067, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092,

1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104,

1105, 1106, 1107, 1108, 1113, 1114, 1116, 2196, 2197, 2198

2011 AXLE CORRECTION FACTORS

ROAD INVENTORY	AXLE CORRECTION	FUNCTIONAL CLASSIFICATION	FACTOR
RURAL			
1	0.95		
2	0.97		
3	0.98		
0,5,6	0.98		
URBAN			
1	0.96		
2,3	0.98		
5	0.98		
0,6	0.99		
I-84			
	0.90		

ROUND OFF	
0 - 999.....	10
> 1,000.....	100

Apply I-84 factor to stations:
3290, 3921, 3929

APPENDIX B3 – Detailed Trip Generation Calculations

Parcel 6 Development

Trip Generation Assessment - ITE

HOWARD STEIN HUDSON

27-Dec-2017

Land Use	Size	Category	Directional Split	Average Trip Rate	Unadjusted Vehicle Trips	Assumed National Vehicle Occupancy Rate ¹	Unadjusted Person-Trips	Transit Share ²	Transit Person-Trips	Walk/Bike/Other Share ²	Walk/ Bike/Other Trips	Auto Share ²	Auto Person-Trips	Assumed Local Auto Occupancy Rate ³	Total Adjusted Auto Trips
Daily Peak Hour															
General Light Industrial ⁴	115.0	Total		4.960	570	1.13	644	27%	174	27%	174	46%	296	1.13	262
	KSF	In	50%	2.480	285	1.13	322	27%	87	27%	87	46%	148	1.13	131
		Out	50%	2.480	285	1.13	322	27%	87	27%	87	46%	148	1.13	131
Shopping Center ⁵	5.0	Total		37.750	188	1.78	334	27%	90	27%	90	46%	154	1.78	86
	KSF	In	50%	18.875	94	1.78	167	27%	45	27%	45	46%	77	1.78	43
		Out	50%	18.875	94	1.78	167	27%	45	27%	45	46%	77	1.78	43
Total		Total			758		978		264		264		450		348
		In			379		489		132		132		225		174
		Out			379		489		132		132		225		174
AM Peak Hour															
General Light Industrial ⁴	115.0	Total		0.70	81	1.13	91		25		25		41	1.13	36
	KSF	In	88%	0.616	71	1.13	80	27%	22	27%	22	46%	36	1.13	32
		Out	12%	0.084	10	1.13	11	27%	3	27%	3	46%	5	1.13	4
Shopping Center ⁵	5.0	Total		0.94	5	1.78	9		2		2		5	1.78	3
	KSF	In	62%	0.583	3	1.78	5	27%	1	27%	1	46%	3	1.78	2
		Out	38%	0.357	2	1.78	4	27%	1	27%	1	46%	2	1.78	1
Total		Total			86		100		27		27		46		39
		In			74		85		23		23		40		35
		Out			12		15		4		4		6		4
PM Peak Hour															
General Light Industrial ⁴	115.0	Total		0.63	72	1.13	81		22		22		37	1.13	33
	KSF	In	13%	0.082	9	1.13	10	27%	3	27%	3	46%	4	1.13	4
		Out	87%	0.548	63	1.13	71	27%	19	27%	19	46%	33	1.13	29
Shopping Center ⁵	5.0	Total		3.81	19	1.78	34		9		9		16	1.78	8
	KSF	In	48%	1.829	9	1.78	16	27%	4	27%	4	46%	8	1.78	4
		Out	52%	1.981	10	1.78	18	27%	5	27%	5	46%	8	1.78	4
Total		Total			91		115		31		31		54		42
		In			18		26		7		7		12		8
		Out			73		89		24		24		42		34

1. 2009 National vehicle occupancy rates - 1.13:home to work; 1.84: family/personal business; 1.78: shopping; 2.2 social/recreational

2. Mode shares based on peak-hour BTD Data for Area 13

3. Local vehicle occupancy rates based on 2009 National vehicle occupancy rates

4. ITE Trip Generation Manual, 10th Edition, LUC 110 (General Light Industrial), average rate

5. ITE Trip Generation Manual, 10th Edition, LUC 820 (Shopping Center), average rate

Parcel 6 Development

Trip Generation Assessment - Parking Supply

HOWARD STEIN HUDSON

January 22nd, 2018

Land Use	Parking Demand	Category	Directional Split	Truck Trips ¹	Auto Trips ²	Total Trips
Daily Peak Hour						
Boston Sword & Tuna	97	Total	100%	128	194	322
	spaces	In	50%	64	97	161
		Out	50%	64	97	161
Sub-parcel 6B	83	Total	100%	178	166	344
	spaces	In	50%	89	83	172
		Out	50%	89	83	172
Seafood Market	20	Total	100%	0	40	40
	spaces	In	50%	0	20	20
		Out	50%	0	20	20
International Longshoresmen Association	60	Total	100%	0	120	120
	spaces	In	50%	0	60	60
		Out	50%	0	60	60
Total	260	Total		306	520	826
	spaces	In		153	260	413
		Out		153	260	413
AM Peak Hour						
Boston Sword & Tuna	97	Total	100%	16	0	16
	spaces	In	50%	8	0	8
		Out	50%	8	0	8
Sub-parcel 6B	83	Total	100%	20	0	20
	spaces	In	50%	10	0	10
		Out	50%	10	0	10
Seafood Market	20	Total	100%	0	5	5
	spaces	In	60%	0	3	3
		Out	40%	0	2	2
International Longshoresmen Association	60	Total	100%	0	0	0
	spaces	In	50%	0	0	0
		Out	50%	0	0	0
Total	260	Total		36	5	41
	spaces	In		18	3	21
		Out		18	2	20
PM Peak Hour						
Boston Sword & Tuna	97	Total	100%	0	0	0
	spaces	In	50%	0	0	0
		Out	50%	0	0	0
Sub-parcel 6B	83	Total	100%	12	0	12
	spaces	In	50%	6	0	6
		Out	50%	6	0	6
Seafood Market	20	Total	100%	0	19	19
	spaces	In	47%	0	9	9
		Out	53%	0	10	10
International Longshoresmen Association	60	Total	100%	0	0	0
	spaces	In	50%	0	0	0
		Out	50%	0	0	0
Total	260	Total		12	19	31
	spaces	In		6	9	15
		Out		6	10	16

1. Based on data obtained from Boston Sword and Tuna

2. Based on parking supply data obtained from Pilot Development Partners, Inc.

Parcel 6 Development

Trip Generation Assessment - Project Specific

HOWARD STEIN HUDSON

1/22/2018

Hour	Trucks BST		Trucks 6B		Café		Employees				ILA		Non-Parcel 6 Garage Parking		Total	
	in	out	in	out	in	out	in	out	in	out						
4:00 AM							18 ¹		9 ¹		9 ¹		35 ¹		71	0
5:00 AM							61 ¹		30 ¹		30 ¹		114 ¹		235	0
6:00 AM	8	8	10	10	1	0	43 ¹		21 ¹		21 ¹		81 ¹		185	18
7:00 AM	8	8	10	10	2	0									20	18
8:00 AM	8	8	10	10	3	2									21	20
9:00 AM	8	8	10	10	3	3									21	21
10:00 AM	8	8	10	10	4	4									22	22
11:00 AM	8	8	9	9	5	5									22	22
12:00 PM	6	6	6	6	6	6									18	18
1:00 PM	5	5	6	6	4	4	18 ¹		9 ¹		9 ¹		35 ¹		15	86
2:00 PM	5	5	6	6	3	3	61 ¹		30 ¹		30 ¹		114 ¹		14	249
3:00 PM			6	6	3	4	43 ¹		21 ¹		21 ¹		81 ¹		9	176
4:00 PM			6	6	9	10									15	16
5:00 PM						2									0	2
6:00 PM															0	0
Total	64	64	89	89	43	43	122	122	60	60	60	60	230	230	668	668

1. Employee travel patterns based on input provided by Proponent.

APPENDIX B4 – Detailed Synchro Analysis

Intersection

Intersection Delay, s/veh 7.3

Intersection LOS A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖ ↗			↖ ↗	↖ ↗	
Traffic Vol, veh/h	8	9	25	2	5	54
Future Vol, veh/h	8	9	25	2	5	54
Peak Hour Factor	0.61	0.61	0.48	0.48	0.55	0.55
Heavy Vehicles, %	12	11	12	0	0	0
Mvmt Flow	13	15	52	4	9	98
Number of Lanes	1	0	0	1	1	0
Approach	EB	WB		NB		
Opposing Approach	WB		EB			
Opposing Lanes	1		1		0	
Conflicting Approach Left			NB		EB	
Conflicting Lanes Left	0		1		1	
Conflicting Approach Right	NB			WB		
Conflicting Lanes Right	1		0		1	
HCM Control Delay	7.2		7.9		7	
HCM LOS	A		A		A	

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	8%	0%	93%
Vol Thru, %	0%	47%	7%
Vol Right, %	92%	53%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	59	17	27
LT Vol	5	0	25
Through Vol	0	8	2
RT Vol	54	9	0
Lane Flow Rate	107	28	56
Geometry Grp	1	1	1
Degree of Util (X)	0.105	0.031	0.07
Departure Headway (Hd)	3.513	4.017	4.499
Convergence, Y/N	Yes	Yes	Yes
Cap	1012	888	797
Service Time	1.563	2.055	2.524
HCM Lane V/C Ratio	0.106	0.032	0.07
HCM Control Delay	7	7.2	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.1	0.2

Intersection

Intersection Delay, s/veh 8.9
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖			↖			↖	
Traffic Vol, veh/h	41	2	212	0	4	0	68	24	1	0	17	15
Future Vol, veh/h	41	2	212	0	4	0	68	24	1	0	17	15
Peak Hour Factor	0.83	0.83	0.83	0.25	0.50	0.25	0.78	0.78	0.78	0.57	0.57	0.57
Heavy Vehicles, %	0	0	8	0	25	0	26	0	0	0	12	13
Mvmt Flow	49	2	255	0	8	0	87	31	1	0	30	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB				EB		SB			NB		
Opposing Lanes	1				1		1			1		
Conflicting Approach Left	SB				NB		EB			WB		
Conflicting Lanes Left	1				1		1			1		
Conflicting Approach Right	NB				SB		WB			EB		
Conflicting Lanes Right	1				1		1			1		
HCM Control Delay	8.9				8.2		9.3			8		
HCM LOS	A				A		A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	73%	16%	0%	0%
Vol Thru, %	26%	1%	100%	53%
Vol Right, %	1%	83%	0%	47%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	93	255	4	32
LT Vol	68	41	0	0
Through Vol	24	2	4	17
RT Vol	1	212	0	15
Lane Flow Rate	119	307	8	56
Geometry Grp	1	1	1	1
Degree of Util (X)	0.172	0.333	0.011	0.072
Departure Headway (Hd)	5.198	3.9	5.089	4.631
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	690	925	704	773
Service Time	3.228	1.911	3.115	2.663
HCM Lane V/C Ratio	0.172	0.332	0.011	0.072
HCM Control Delay	9.3	8.9	8.2	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	1.5	0	0.2

Synchro 9 Report

HCM Unsignedized Intersection Capacity Analysis

5: Northern Avenue & Seafood Way

Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	510	4	0	104	6	0	0	0	5	0	63
Future Volume (Veh/h)	58	510	4	0	104	6	0	0	0	5	0	63
Sign Control	Free				Free			Stop			Stop	
Grade		0%				0%			0%			0%
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.92	0.92	0.92	0.85	0.85	0.85
Hourly flow rate (vph)	67	586	5	0	121	7	0	0	0	6	0	74
Pedestrians									6			
Lane Width (ft)									0.0			
Walking Speed (ft/s)									3.5			
Percent Blockage									0			
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	128			597			927	856	594	847	856	124
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	128			597			927	856	594	847	856	124
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.3	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.7	4.0	3.4
p0 queue free %	95			100			100	100	100	98	100	92
cM capacity (veh/h)	1440			989			220	281	505	253	284	903
Direction, Lane #	EB 1	WB 1	SB 1									
Volume Total	658	128	80									
Volume Left	67	0	6									
Volume Right	5	7	74									
cSH	1440	989	757									
Volume to Capacity	0.05	0.00	0.11									
Queue Length 95th (ft)	4	0	9									
Control Delay (s)	1.3	0.0	10.3									
Lane LOS	A		B									
Approach Delay (s)	1.3	0.0	10.3									
Approach LOS			B									
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utilization		47.8%		ICU Level of Service						A		
Analysis Period (min)			15									

Intersection

Intersection Delay, s/veh 7.3
Intersection LOS A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖ ↗ ↘ ↗ ↘ ↗ ↘					
Traffic Vol, veh/h	2	15	36	8	7	8
Future Vol, veh/h	2	15	36	8	7	8
Peak Hour Factor	0.53	0.53	0.73	0.73	0.75	0.75
Heavy Vehicles, %	0	47	6	12	29	0
Mvmt Flow	4	28	49	11	9	11
Number of Lanes	1	0	0	1	1	0
Approach	EB	WB		NB		
Opposing Approach	WB		EB			
Opposing Lanes	1		1		0	
Conflicting Approach Left			NB		EB	
Conflicting Lanes Left	0		1		1	
Conflicting Approach Right	NB			WB		
Conflicting Lanes Right	1		0		1	
HCM Control Delay	6.6		7.6		7.5	
HCM LOS	A		A		A	

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	47%	0%	82%
Vol Thru, %	0%	12%	18%
Vol Right, %	53%	88%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	15	17	44
LT Vol	7	0	36
Through Vol	0	2	8
RT Vol	8	15	0
Lane Flow Rate	20	32	60
Geometry Grp	1	1	1
Degree of Util (X)	0.024	0.031	0.071
Departure Headway (Hd)	4.328	3.451	4.226
Convergence, Y/N	Yes	Yes	Yes
Cap	825	1036	850
Service Time	2.364	1.477	2.239
HCM Lane V/C Ratio	0.024	0.031	0.071
HCM Control Delay	7.5	6.6	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2

Intersection

Intersection Delay, s/veh 8.9
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	7	0	100	10	10	0	140	12	1	0	22	29
Future Vol, veh/h	7	0	100	10	10	0	140	12	1	0	22	29
Peak Hour Factor	0.76	0.76	0.76	0.83	0.83	0.83	0.81	0.81	0.81	0.80	0.80	0.80
Heavy Vehicles, %	43	0	14	10	0	0	14	17	0	0	4	28
Mvmt Flow	9	0	132	12	12	0	173	15	1	0	28	36
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	8.8			8.2			9.4			7.6		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	92%	7%	50%	0%
Vol Thru, %	8%	0%	50%	43%
Vol Right, %	1%	93%	0%	57%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	153	107	20	51
LT Vol	140	7	10	0
Through Vol	12	0	10	22
RT Vol	1	100	0	29
Lane Flow Rate	189	141	24	64
Geometry Grp	1	1	1	1
Degree of Util (X)	0.251	0.185	0.033	0.075
Departure Headway (Hd)	4.791	4.723	4.954	4.258
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	752	762	723	842
Service Time	2.812	2.743	2.982	2.282
HCM Lane V/C Ratio	0.251	0.185	0.033	0.076
HCM Control Delay	9.4	8.8	8.2	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.7	0.1	0.2

Synchro 9 Report

HCM Unsignedized Intersection Capacity Analysis

5: Northern Avenue & Seafood Way

Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	108	1	0	363	4	0	0	0	8	0	57
Future Volume (Veh/h)	16	108	1	0	363	4	0	0	0	8	0	57
Sign Control	Free				Free			Stop			Stop	
Grade		0%				0%			0%			0%
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.25	0.25	0.25	0.74	0.74	0.74
Hourly flow rate (vph)	18	124	1	0	432	5	0	0	0	11	0	77
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	437			125			672	598	124	595	596	434
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	437			125			672	598	124	595	596	434
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.3	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.7	4.0	3.5
p0 queue free %	98			100			100	100	100	97	100	87
cM capacity (veh/h)	1072			1474			319	412	932	379	413	589
Direction, Lane #	EB 1	WB 1	SB 1									
Volume Total	143	437	88									
Volume Left	18	0	11									
Volume Right	1	5	77									
cSH	1072	1474	551									
Volume to Capacity	0.02	0.00	0.16									
Queue Length 95th (ft)	1	0	14									
Control Delay (s)	1.2	0.0	12.8									
Lane LOS	A		B									
Approach Delay (s)	1.2	0.0	12.8									
Approach LOS			B									
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utilization		30.0%			ICU Level of Service					A		
Analysis Period (min)			15									

Intersection

Intersection Delay, s/veh 8.1
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	8	9	38	2	0	5	0	115	0	111	0
Future Vol, veh/h	0	8	9	38	2	0	5	0	115	0	111	0
Peak Hour Factor	0.92	0.61	0.61	0.48	0.48	0.92	0.55	0.92	0.55	0.92	0.92	0.92
Heavy Vehicles, %	2	12	11	12	0	2	0	2	0	2	2	2
Mvmt Flow	0	13	15	79	4	0	9	0	209	0	121	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB		WB			NB			SB			
Opposing Approach	WB		EB			NB			SB			
Opposing Lanes	1		1			1			1			
Conflicting Approach Left	SB		NB			EB			WB			
Conflicting Lanes Left	1		1			1			1			
Conflicting Approach Right	NB		SB			WB			EB			
Conflicting Lanes Right	1		1			1			1			
HCM Control Delay	7.8		8.7			7.9			8.2			
HCM LOS	A		A			A			A			

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	95%	0%
Vol Thru, %	0%	47%	5%	100%
Vol Right, %	96%	53%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	17	40	111
LT Vol	5	0	38	0
Through Vol	0	8	2	111
RT Vol	115	9	0	0
Lane Flow Rate	218	28	83	121
Geometry Grp	1	1	1	1
Degree of Util (X)	0.227	0.036	0.116	0.148
Departure Headway (Hd)	3.746	4.591	5.021	4.417
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	960	780	715	813
Service Time	1.76	2.617	3.045	2.434
HCM Lane V/C Ratio	0.227	0.036	0.116	0.149
HCM Control Delay	7.9	7.8	8.7	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.1	0.4	0.5

Intersection

Intersection Delay, s/veh 11.5
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖			↖			↖	
Traffic Vol, veh/h	143	2	230	0	4	0	76	45	1	0	19	48
Future Vol, veh/h	143	2	230	0	4	0	76	45	1	0	19	48
Peak Hour Factor	0.83	0.83	0.83	0.25	0.50	0.25	0.78	0.78	0.78	0.57	0.57	0.57
Heavy Vehicles, %	0	0	8	0	25	0	26	0	0	0	12	13
Mvmt Flow	172	2	277	0	8	0	97	58	1	0	33	84
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB				EB		SB			NB		
Opposing Lanes	1				1		1			1		
Conflicting Approach Left	SB					NB		EB			WB	
Conflicting Lanes Left	1					1		1			1	
Conflicting Approach Right	NB					SB		WB			EB	
Conflicting Lanes Right	1					1		1			1	
HCM Control Delay	12.5					8.7		10.6			9	
HCM LOS	B				A		B			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	62%	38%	0%	0%
Vol Thru, %	37%	1%	100%	28%
Vol Right, %	1%	61%	0%	72%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	375	4	67
LT Vol	76	143	0	0
Through Vol	45	2	4	19
RT Vol	1	230	0	48
Lane Flow Rate	156	452	8	118
Geometry Grp	1	1	1	1
Degree of Util (X)	0.246	0.546	0.012	0.161
Departure Headway (Hd)	5.652	4.347	5.588	4.943
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	630	827	635	718
Service Time	3.732	2.389	3.673	3.027
HCM Lane V/C Ratio	0.248	0.547	0.013	0.164
HCM Control Delay	10.6	12.5	8.7	9
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1	3.4	0	0.6

Synchro 9 Report

HCM Unsignedized Intersection Capacity Analysis

3: Northern Avenue & Seafood Way

Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	638	4	0	143	6	0	0	0	5	0	67
Future Volume (Veh/h)	62	638	4	0	143	6	0	0	0	5	0	67
Sign Control	Free				Free			Stop			Stop	
Grade	0%				0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.92	0.92	0.92	0.85	0.85	0.85
Hourly flow rate (vph)	71	733	5	0	166	7	0	0	0	6	0	79
Pedestrians										6		
Lane Width (ft)										0.0		
Walking Speed (ft/s)										3.5		
Percent Blockage										0		
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	173			744			1132	1056	742	1047	1056	170
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	173			744			1132	1056	742	1047	1056	170
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.3	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.7	4.0	3.4
p0 queue free %	95			100			100	100	100	97	100	91
cM capacity (veh/h)	1386			873			157	214	416	183	216	852
Direction, Lane #	EB 1	WB 1	SB 1									
Volume Total	809	173	85									
Volume Left	71	0	6									
Volume Right	5	7	79									
cSH	1386	873	677									
Volume to Capacity	0.05	0.00	0.13									
Queue Length 95th (ft)	4	0	11									
Control Delay (s)	1.3	0.0	11.1									
Lane LOS	A		B									
Approach Delay (s)	1.3	0.0	11.1									
Approach LOS			B									
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utilization		59.6%			ICU Level of Service					B		
Analysis Period (min)			15									

Intersection

Intersection Delay, s/veh 8.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	2	16	98	8	0	7	0	12	0	110	0
Future Vol, veh/h	0	2	16	98	8	0	7	0	12	0	110	0
Peak Hour Factor	0.92	0.53	0.53	0.73	0.73	0.92	0.75	0.92	0.75	0.92	0.92	0.92
Heavy Vehicles, %	2	0	47	6	12	2	29	2	0	2	2	2
Mvmt Flow	0	4	30	134	11	0	9	0	16	0	120	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach		EB		WB			NB			SB		
Opposing Approach		WB		EB			SB			NB		
Opposing Lanes		1		1			1			1		
Conflicting Approach Left		SB		NB			EB			WB		
Conflicting Lanes Left		1		1			1			1		
Conflicting Approach Right		NB		SB			WB			EB		
Conflicting Lanes Right		1		1			1			1		
HCM Control Delay		7		8.6			7.8			8.1		
HCM LOS		A		A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	0%	92%	0%
Vol Thru, %	0%	11%	8%	100%
Vol Right, %	63%	89%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	18	106	110
LT Vol	7	0	98	0
Through Vol	0	2	8	110
RT Vol	12	16	0	0
Lane Flow Rate	25	34	145	120
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.036	0.184	0.146
Departure Headway (Hd)	4.638	3.866	4.568	4.381
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	774	928	790	821
Service Time	2.652	1.88	2.568	2.392
HCM Lane V/C Ratio	0.032	0.037	0.184	0.146
HCM Control Delay	7.8	7	8.6	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.7	0.5

Intersection

Intersection Delay, s/veh 10.8
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖			↖			↖	
Traffic Vol, veh/h	26	0	168	10	10	0	164	16	1	0	52	147
Future Vol, veh/h	26	0	168	10	10	0	164	16	1	0	52	147
Peak Hour Factor	0.76	0.76	0.76	0.83	0.83	0.83	0.81	0.81	0.81	0.80	0.80	0.80
Heavy Vehicles, %	43	0	14	10	0	0	14	17	0	0	4	28
Mvmt Flow	34	0	221	12	12	0	202	20	1	0	65	184
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	11.6			9.1			11.1			9.8		
HCM LOS	B			A			B			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	91%	13%	50%	0%
Vol Thru, %	9%	0%	50%	26%
Vol Right, %	1%	87%	0%	74%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	181	194	20	199
LT Vol	164	26	10	0
Through Vol	16	0	10	52
RT Vol	1	168	0	147
Lane Flow Rate	223	255	24	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.333	0.376	0.039	0.317
Departure Headway (Hd)	5.362	5.298	5.833	4.584
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	664	671	618	776
Service Time	3.449	3.39	3.833	2.666
HCM Lane V/C Ratio	0.336	0.38	0.039	0.321
HCM Control Delay	11.1	11.6	9.1	9.8
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1.5	1.7	0.1	1.4

Synchro 9 Report

HCM Unsignedized Intersection Capacity Analysis

3: Northern Avenue & Seafood Way

Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	133	1	0	503	4	0	0	0	8	0	61
Future Volume (Veh/h)	17	133	1	0	503	4	0	0	0	8	0	61
Sign Control	Free				Free			Stop			Stop	
Grade		0%				0%			0%			0%
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.25	0.25	0.25	0.74	0.74	0.74
Hourly flow rate (vph)	20	153	1	0	599	5	0	0	0	11	0	82
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	604			154			877	798	154	795	796	602
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	604			154			877	798	154	795	796	602
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.3	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.7	4.0	3.5
p0 queue free %	98			100			100	100	100	96	100	83
cM capacity (veh/h)	927			1439			220	315	898	275	315	472
Direction, Lane #	EB 1	WB 1	SB 1									
Volume Total	174	604	93									
Volume Left	20	0	11									
Volume Right	1	5	82									
cSH	927	1439	435									
Volume to Capacity	0.02	0.00	0.21									
Queue Length 95th (ft)	2	0	20									
Control Delay (s)	1.2	0.0	15.5									
Lane LOS	A		C									
Approach Delay (s)	1.2	0.0	15.5									
Approach LOS			C									
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utilization		37.6%		ICU Level of Service						A		
Analysis Period (min)			15									

Intersection

Intersection Delay, s/veh 8.4
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖			↖			↖	
Traffic Vol, veh/h	0	8	9	43	2	0	5	15	121	0	48	0
Future Vol, veh/h	0	8	9	43	2	0	5	15	121	0	48	0
Peak Hour Factor	0.92	0.61	0.61	0.48	0.48	0.92	0.55	0.92	0.55	0.92	0.92	0.92
Heavy Vehicles, %	2	12	11	43	0	0	0	29	28	0	48	0
Mvmt Flow	0	13	15	90	4	0	9	16	220	0	52	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB		WB			NB			SB			
Opposing Approach	WB		EB			NB			SB			
Opposing Lanes	1		1			1			1			
Conflicting Approach Left	SB		NB			EB			WB			
Conflicting Lanes Left	1		1			1			1			
Conflicting Approach Right	NB		SB			WB			EB			
Conflicting Lanes Right	1		1			1			1			
HCM Control Delay	7.7		9.4			8.1			8.7			
HCM LOS	A		A			A			A			

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	96%	0%
Vol Thru, %	11%	47%	4%	100%
Vol Right, %	86%	53%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	141	17	45	48
LT Vol	5	0	43	0
Through Vol	15	8	2	48
RT Vol	121	9	0	0
Lane Flow Rate	245	28	94	52
Geometry Grp	1	1	1	1
Degree of Util (X)	0.259	0.035	0.143	0.077
Departure Headway (Hd)	3.796	4.543	5.48	5.285
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	950	788	655	680
Service Time	1.806	2.573	3.507	3.303
HCM Lane V/C Ratio	0.258	0.036	0.144	0.076
HCM Control Delay	8.1	7.7	9.4	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.1	0.5	0.2

Intersection

Intersection Delay, s/veh 12.3

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖			↖			↖	
Traffic Vol, veh/h	158	2	230	0	4	0	76	51	1	0	24	63
Future Vol, veh/h	158	2	230	0	4	0	76	51	1	0	24	63
Peak Hour Factor	0.83	0.83	0.83	0.25	0.50	0.25	0.78	0.78	0.78	0.57	0.57	0.57
Heavy Vehicles, %	0	0	8	0	25	0	26	0	0	0	12	13
Mvmt Flow	190	2	277	0	8	0	97	65	1	0	42	111
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB				EB		SB			NB		
Opposing Lanes	1				1		1			1		
Conflicting Approach Left	SB				NB		EB			WB		
Conflicting Lanes Left	1				1		1			1		
Conflicting Approach Right	NB				SB		WB			EB		
Conflicting Lanes Right	1				1		1			1		
HCM Control Delay	13.7				9		11			9.5		
HCM LOS	B				A		B			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	41%	0%	0%
Vol Thru, %	40%	1%	100%	28%
Vol Right, %	1%	59%	0%	72%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	390	4	87
LT Vol	76	158	0	0
Through Vol	51	2	4	24
RT Vol	1	230	0	63
Lane Flow Rate	164	470	8	153
Geometry Grp	1	1	1	1
Degree of Util (X)	0.267	0.584	0.013	0.217
Departure Headway (Hd)	5.863	4.476	5.865	5.125
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	615	799	612	705
Service Time	3.867	2.548	3.882	3.125
HCM Lane V/C Ratio	0.267	0.588	0.013	0.217
HCM Control Delay	11	13.7	9	9.5
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1.1	3.9	0	0.8

Synchro 9 Report

HCM Unsignedized Intersection Capacity Analysis

3: Northern Avenue & Seafood Way

Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	653	4	0	158	6	0	0	0	5	0	67
Future Volume (Veh/h)	62	653	4	0	158	6	0	0	0	5	0	67
Sign Control	Free				Free			Stop			Stop	
Grade	0%				0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.92	0.92	0.92	0.85	0.85	0.85
Hourly flow rate (vph)	71	751	5	0	184	7	0	0	0	6	0	79
Pedestrians										6		
Lane Width (ft)										0.0		
Walking Speed (ft/s)										3.5		
Percent Blockage										0		
Right turn flare (veh)												
Median type	None				None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	191			762			1168	1092	760	1083	1092	188
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	191			762			1168	1092	760	1083	1092	188
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.3	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.7	4.0	3.4
p0 queue free %	95			100			100	100	100	97	100	91
cM capacity (veh/h)	1365			859			148	203	406	173	205	832
Direction, Lane #	EB 1	WB 1	SB 1									
Volume Total	827	191	85									
Volume Left	71	0	6									
Volume Right	5	7	79									
cSH	1365	859	655									
Volume to Capacity	0.05	0.00	0.13									
Queue Length 95th (ft)	4	0	11									
Control Delay (s)	1.3	0.0	11.3									
Lane LOS	A		B									
Approach Delay (s)	1.3	0.0	11.3									
Approach LOS			B									
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utilization		61.1%		ICU Level of Service						B		
Analysis Period (min)			15									

Synchro 9 Report

HCM Unsigned Intersection Capacity Analysis

4: Bollard Way & Fid Kennedy Avenue

Timing Plan: AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	124	0	0	17	0	0	0	0	0	0	2
Future Volume (Veh/h)	3	124	0	0	17	0	0	0	0	0	0	2
Sign Control	Free				Free			Stop			Stop	
Grade		0%				0%			0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	135	0	0	18	0	0	0	0	0	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	18			135			161	159	135	159	159	18
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	18			135			161	159	135	159	159	18
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1612			1462			802	732	914	810	735	1066
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	138	18	0	2								
Volume Left	3	0	0	0								
Volume Right	0	0	0	2								
cSH	1612	1462	1700	1066								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.2	0.0	0.0	8.4								
Lane LOS	A		A	A								
Approach Delay (s)	0.2	0.0	0.0	8.4								
Approach LOS			A	A								
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization		18.9%			ICU Level of Service							
Analysis Period (min)			15									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	121	0	0	13	0	0	0	0	0	0	4
Future Volume (Veh/h)	3	121	0	0	13	0	0	0	0	0	0	4
Sign Control	Free				Free			Stop			Stop	
Grade		0%				0%			0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	132	0	0	14	0	0	0	0	0	0	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	14			132			156	152	132	152	152	14
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	14			132			156	152	132	152	152	14
tC, single (s)	5.1			4.1			7.1	6.5	6.2	7.1	6.5	7.2
tC, 2 stage (s)												
tF (s)	3.1			2.2			3.5	4.0	3.3	3.5	4.0	4.2
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1145			1466			805	738	917	818	741	840
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	135	14	0	4								
Volume Left	3	0	0	0								
Volume Right	0	0	0	4								
cSH	1145	1466	1700	840								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.2	0.0	0.0	9.3								
Lane LOS	A		A	A								
Approach Delay (s)	0.2	0.0	0.0	9.3								
Approach LOS			A	A								
Intersection Summary												
Average Delay			0.4									
Intersection Capacity Utilization		18.8%			ICU Level of Service					A		
Analysis Period (min)			15									

Intersection

Intersection Delay, s/veh 8.4
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	2	16	110	8	0	7	4	23	0	99	0
Future Vol, veh/h	0	2	16	110	8	0	7	4	23	0	99	0
Peak Hour Factor	0.92	0.53	0.53	0.73	0.73	0.92	0.75	0.92	0.75	0.92	0.92	0.92
Heavy Vehicles, %	2	0	47	13	0	0	0	58	11	0	15	0
Mvmt Flow	0	4	30	151	11	0	9	4	31	0	108	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach		EB		WB			NB			SB		
Opposing Approach		WB		EB			NB			NB		
Opposing Lanes		1		1			1			1		
Conflicting Approach Left		SB		NB			EB			WB		
Conflicting Lanes Left		1		1			1			1		
Conflicting Approach Right		NB		SB			WB			EB		
Conflicting Lanes Right		1		1			1			1		
HCM Control Delay		7.1		9			7.4			8.4		
HCM LOS		A		A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	0%	93%	0%
Vol Thru, %	12%	11%	7%	100%
Vol Right, %	68%	89%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	18	118	99
LT Vol	7	0	110	0
Through Vol	4	2	8	99
RT Vol	23	16	0	0
Lane Flow Rate	44	34	162	108
Geometry Grp	1	1	1	1
Degree of Util (X)	0.051	0.037	0.212	0.14
Departure Headway (Hd)	4.128	3.909	4.712	4.67
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	868	917	766	769
Service Time	2.149	1.929	2.712	2.687
HCM Lane V/C Ratio	0.051	0.037	0.211	0.14
HCM Control Delay	7.4	7.1	9	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.8	0.5

Intersection

Intersection Delay, s/veh 11.4

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	37	0	168	10	10	0	164	20	1	0	56	159
Future Vol, veh/h	37	0	168	10	10	0	164	20	1	0	56	159
Peak Hour Factor	0.76	0.76	0.76	0.83	0.83	0.83	0.81	0.81	0.81	0.80	0.80	0.80
Heavy Vehicles, %	43	0	14	10	0	0	14	17	0	0	4	28
Mvmt Flow	49	0	221	12	12	0	202	25	1	0	70	199
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	12.3			9.2			11.6			10.4		
HCM LOS	B			A			B			B		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	89%	18%	50%	0%
Vol Thru, %	11%	0%	50%	26%
Vol Right, %	1%	82%	0%	74%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	185	205	20	215
LT Vol	164	37	10	0
Through Vol	20	0	10	56
RT Vol	1	168	0	159
Lane Flow Rate	228	270	24	269
Geometry Grp	1	1	1	1
Degree of Util (X)	0.352	0.412	0.04	0.355
Departure Headway (Hd)	5.554	5.501	5.953	4.755
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	651	655	601	761
Service Time	3.563	3.529	3.994	2.762
HCM Lane V/C Ratio	0.35	0.412	0.04	0.353
HCM Control Delay	11.6	12.3	9.2	10.4
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.6	2	0.1	1.6

Synchro 9 Report

HCM Unsignedized Intersection Capacity Analysis

3: Northern Avenue & Seafood Way

Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	144	1	0	515	4	0	0	0	8	0	61
Future Volume (Veh/h)	17	144	1	0	515	4	0	0	0	8	0	61
Sign Control	Free				Free			Stop			Stop	
Grade		0%				0%			0%			0%
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.25	0.25	0.25	0.74	0.74	0.74
Hourly flow rate (vph)	20	166	1	0	613	5	0	0	0	11	0	82
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	618			167			904	824	166	822	822	616
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	618			167			904	824	166	822	822	616
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.3	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.7	4.0	3.5
p0 queue free %	98			100			100	100	100	96	100	82
cM capacity (veh/h)	915			1423			210	303	883	263	304	463
Direction, Lane #	EB 1	WB 1	SB 1									
Volume Total	187	618	93									
Volume Left	20	0	11									
Volume Right	1	5	82									
cSH	915	1423	425									
Volume to Capacity	0.02	0.00	0.22									
Queue Length 95th (ft)	2	0	21									
Control Delay (s)	1.2	0.0	15.8									
Lane LOS	A		C									
Approach Delay (s)	1.2	0.0	15.8									
Approach LOS			C									
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utilization		38.2%		ICU Level of Service								
Analysis Period (min)		15										

Synchro 9 Report

HCM Unsigned Intersection Capacity Analysis

4: Bollard Way & Fid Kennedy Avenue

Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	16	0	0	78	0	0	0	0	0	0	2
Future Volume (Veh/h)	9	16	0	0	78	0	0	0	0	0	0	2
Sign Control	Free				Free			Stop			Stop	
Grade	0%				0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	17	0	0	85	0	0	0	0	0	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	85			17			124	122	17	122	122	85
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	85			17			124	122	17	122	122	85
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	100	100	100
cM capacity (veh/h)	1524			1613			844	763	1062	853	767	980
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	27	85	0	2								
Volume Left	10	0	0	0								
Volume Right	0	0	0	2								
cSH	1524	1613	1700	980								
Volume to Capacity	0.01	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	2.8	0.0	0.0	8.7								
Lane LOS	A		A	A								
Approach Delay (s)	2.8	0.0	0.0	8.7								
Approach LOS		A	A									
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization		18.0%			ICU Level of Service					A		
Analysis Period (min)			15									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	14	0	0	68	0	0	0	0	0	0	10
Future Volume (Veh/h)	2	14	0	0	68	0	0	0	0	0	0	10
Sign Control	Free				Free			Stop			Stop	
Grade	0%				0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	15	0	0	74	0	0	0	0	0	0	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	74				15			104	93	15	93	93
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	74				15			104	93	15	93	93
tC, single (s)	5.1				4.1			7.1	6.5	6.2	7.1	6.5
tC, 2 stage (s)												
tF (s)	3.1				2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	100				100			100	100	100	100	99
cM capacity (veh/h)	1079				1616			862	796	1065	894	799
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	17	74	0	11								
Volume Left	2	0	0	0								
Volume Right	0	0	0	11								
cSH	1079	1616	1700	772								
Volume to Capacity	0.00	0.00	0.00	0.01								
Queue Length 95th (ft)	0	0	0	1								
Control Delay (s)	1.0	0.0	0.0	9.7								
Lane LOS	A		A	A								
Approach Delay (s)	1.0	0.0	0.0	9.7								
Approach LOS			A	A								
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization		13.6%			ICU Level of Service					A		
Analysis Period (min)			15									

APPENDIX C – RESPONSES TO CLIMATE CHANGE QUESTIONNAIRE



Climate Resiliency Checklist

NOTE: Project filings should be prepared and submitted using the online [Climate Resiliency Checklist](#).

A.1 - Project Information

Project Name:	Boston Sword & Tuna, MMT Parcel 6, Subparcel 6A		
Project Address:	Bounded by Fid Kennedy Avenue and Tide St Extension (new), Flynn Marine Park		
Project Address Additional:			
Filing Type (select)	<i>Initial (PNF) Design (prior to final design approval)</i>		
Filing Contact	Kathryn Maynes	Pilot Seafood Properties III LLC	kmaynes@pilotdevelopment.com
Is MEPA approval required	Yes	TBD	617 542-0450

A.3 - Project Team

Owner / Developer:	Subparcel 6A owner - Boston Sword & Tuna; Development managed by Pilot Seafood Properties III LLC
Architect:	Design Group –
Engineer:	Hayes Engineering, Inc. – 603 Salem St. – Wakefield, MA 01880
Sustainability / LEED:	Soden Sustainability Consulting
Permitting:	MLF Consulting
Construction Management:	Commodore

A.3 - Project Description and Design Conditions

List the principal Building Uses:	Subparcel 6A - Seafood processing plant,
List the First Floor Uses:	Same as above
List any Critical Site Infrastructure and or Building Uses:	Transformers are to be elevated above BFE. (Sanitary lift station to be on Subparcel 6C)

Site and Building:

Site Area:	283,689 SF	Building Area:	48,070 SF
Building Height:	45 Ft	Building Height:	2 Stories
Existing Site Elevation – Low:	14 Ft BCB	Existing Site Elevation – High:	16 Ft BCB
Proposed Site Elevation – Low:	16 Ft BCB	Proposed Site Elevation – High:	20.5 Ft BCB
Proposed First Floor Elevation:	20.5 Ft BCB	Below grade levels:	0 Stories

Article 37 Green Building:

LEED Version - Rating System :	BDC V4	LEED Certification:	No
Proposed LEED rating:	Certified	Proposed LEED point score:	46 Pts.

Energy Loads and Performance

For this filing – describe how energy loads & performance were determined

Owner currently occupies a building of similar type to the proposed. Base energy loads were established on the basis the Owner's existing actual energy use per sq. ft. multiplied by 85%, then by the number of square feet proposed. Please note that the dominant energy use is for plant equipment, ice making and refrigeration. In office and employee support areas, the project expects to reduce energy use by 35-40%.

Annual Electric:	3,200.000(kWh)	Peak Electric:	480(kW)
Annual Heating:	(MMbtu/hr)	Peak Heating:	(MMbtu)
Annual Cooling:	(Tons/hr)	Peak Cooling:	(Tons)
Energy Use - Below ASHRAE 90.1 - 2013:	ASHRAE does not apply to use%	Have the local utilities reviewed the building energy performance?:	No
Energy Use - Below Mass. Code:	%	Energy Use Intensity:	(kBtu/SF)

Back-up / Emergency Power System

Electrical Generation Output:	(kW)	Number of Power Units:	
System Type:	(kW)	Fuel Source:	

Emergency and Critical System Loads (in the event of a service interruption)

Electric:	(kW)	Heating:	(MMbtu/hr)
		Cooling:	(Tons/hr)

B – Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance

Reducing GHG emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon neutrality by 2050 new buildings performance will need to progressively improve to net carbon zero and positive.

B.1 – GHG Emissions - Design Conditions

For this Filing - Annual Building GHG Emissions: TBD (Tons)

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

We have carefully reviewed perspective measures including ventilation performance, LED lighting only, and where possible energy star equipment.

Describe building specific passive energy efficiency measures including orientation, massing, envelope, and systems:

We are focusing on tight thermal envelope with increased insulation with reduced windows avoiding heat loss and thermal bridging.

Describe building specific active energy efficiency measures including equipment, controls, fixtures, and systems:

LED Lighting, BMS system, thermal and lighting controls on the office areas.

Describe building specific load reduction strategies including on-site renewable, clean, and energy storage systems:

Onsite renewable will be evaluated for this project.

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

TBD

Describe any energy efficiency assistance or support provided or to be provided to the project:

We have energy modeling contracted as a service to this project in addition to pursuing utility incentives for energy conservation measures.

B.2 - GHG Reduction - Adaptation Strategies

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

TBD

C - Extreme Heat Events

Annual average temperature in Boston increased by about 2°F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

C.1 – Extreme Heat - Design Conditions

Temperature Range - Low: Deg.

Temperature Range - High: Deg.

Annual Heating Degree Days:

Annual Cooling Degree Days:

What Extreme Heat Event characteristics will be / have been used for project planning

Days - Above 90°: #

Days – Above 100°: #

Number of Heatwaves / Year: #

Average Duration of Heatwave (Days): #

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

Light/white roofing, structured parking

C.2 - Extreme Heat – Adaptation Strategies

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

TBD

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

D - Extreme Precipitation Events

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25". There is a significant probability that this will increase to at least 6" by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

D.1 – Extreme Precipitation - Design Conditions

10 Year, 24 Hour Design Storm: 7.0 In.

Describe all building and site measures for reducing storm water run-off:

Infiltration/treatment for the first inch of runoff from impervious surfaces

D.2 - Extreme Precipitation - Adaptation Strategies

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

Subsurface retention

E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, sea levels in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA SFHA?

(Yes) / No

What Zone:

A, (AE), AH, AO,
AR, A99, V, VE

Current FEMA SFHA Zone Base Flood Elevation:

16.5 Ft BCB

Is any portion of the site in a BPDA Sea Level Rise - Flood Hazard Area? Use the online [BPDA SLR-FHA Mapping Tool](#) to assess the susceptibility of the project site.

(Yes) / No
19.4 Ft
BCB

*If you answered YES to either of the above questions, please complete the following questions.
Otherwise you have completed the questionnaire; thank you!*

E.1 – Sea Level Rise and Storms – Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented on the BPDA Sea Level Rise - Flood Hazard Area (SLR-FHA) map, which depicts a modeled 1% annual chance coastal flood event with 40 inches of sea level rise (SLR). Use the online [BPDA SLR-FHA Mapping Tool](#) to identify the highest Sea Level Rise - Base Flood Elevation for the site. The Sea Level Rise - Design Flood Elevation is determined by adding either 24" of freeboard for critical facilities and infrastructure and any ground floor residential units OR 12" of freeboard for other buildings and uses.

Sea Level Rise - Base Flood Elevation:

19.4 Ft BCB
20.4 Ft BCB
20.5 Ft BCB

Sea Level Rise - Design Flood Elevation:

First Floor Elevation: 20.5 Ft BCB

Site Elevations at Building:

Accessible Route Elevation: 20.5 Ft BCB

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Elevated site areas and elevated critical utility infrastructure.

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:

Describe any strategies that would support rapid recovery after a weather event:

E.2 – Sea Level Rise and Storms – Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

A pdf and word version of the Climate Resiliency Checklist is provided for informational use and off-line preparation of a project submission. NOTE: Project filings should be prepared and submitted using the online [Climate Resiliency Checklist](#).

For questions or comments about this checklist or Climate Change best practices, please contact:
John.Dalzell@boston.gov



Climate Resiliency Checklist

NOTE: Project filings should be prepared and submitted using the online [Climate Resiliency Checklist](#).

A.1 - Project Information

Project Name:	MMT Parcel 6, Sub-PARCEL 6B		
Project Address:	Bounded by Fid Kennedy and Tide St Extension (new), Flynn Marine Park		
Project Address Additional:			
Filing Type (select)	<i>Initial (PNF) Design (prior to final design approval)</i>		
Filing Contact	Kathryn Maynes	Pilot Seafood Properties III LLC	kmaynes@pilotdevelopment.com 617 542-0450
Is MEPA approval required	Yes		TBD

A.3 - Project Team

Owner / Developer:	Subparcel 6B leasehold improvement owner – to be determined; Development managed by Pilot Seafood Properties III LLC
Architect:	TBD
Engineer:	Hayes Engineering, Inc. – 603 Salem St. – Wakefield, MA 01880
Sustainability / LEED:	Soden Sustainability Consulting
Permitting:	MLF Consulting
Construction Management:	TBD

A.3 - Project Description and Design Conditions

List the principal Building Uses:	Subparcel 6B - Seafood processing plant,
List the First Floor Uses:	Same as above
List any Critical Site Infrastructure and or Building Uses:	Transformers are to be elevated above BFE. (Sanitary lift station to be on Subparcel 6C)

Site and Building:

Site Area:	133,996 SF	Building Area:	67,000 SF
Building Height:	45 Ft	Building Height:	2 Stories
Existing Site Elevation – Low:	14 Ft BCB	Existing Site Elevation – High:	16 Ft BCB
Proposed Site Elevation – Low:	16 Ft BCB	Proposed Site Elevation – High:	20.5 Ft BCB
Proposed First Floor Elevation:	20.5 Ft BCB	Below grade levels:	0 Stories

Article 37 Green Building:

LEED Version - Rating System :	V4	LEED Certification:	No
Proposed LEED rating:	Certified/Silver/ Gold/Platinum	Proposed LEED point score:	Pts.

Energy Loads and Performance

For this filing – describe how energy loads & performance were determined

Annual Electric:	(kWh)	Peak Electric:	(kW)
Annual Heating:	(MMbtu/hr)	Peak Heating:	(MMbtu)
Annual Cooling:	(Tons/hr)	Peak Cooling:	(Tons)
Have the local utilities reviewed the building energy performance?:			No
Energy Use - Below ASHRAE 90.1 - 2013:	ASHRAE does not apply to use%	Energy Use Intensity:	(kBtu/SF)
Energy Use - Below Mass. Code:	%		

Back-up / Emergency Power System

Electrical Generation Output:	(kW)	Number of Power Units:	
System Type:	(kW)	Fuel Source:	

Emergency and Critical System Loads (in the event of a service interruption)

Electric:	(kW)	Heating:	(MMbtu/hr)
		Cooling:	(Tons/hr)

B – Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance

Reducing GHG emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon neutrality by 2050 new buildings performance will need to progressively improve to net carbon zero and positive.

B.1 – GHG Emissions - Design Conditions

For this Filing - Annual Building GHG Emissions: (Tons)

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

TBD - We have carefully reviewed prospective measures including ventilation performance, LED lighting only, and where possible energy star equipment.

Describe building specific passive energy efficiency measures including orientation, massing, envelop, and systems:

TBD - We are focusing on tight thermal envelope with increased insulation with reduced windows avoiding heat loss and thermal bridging.

Describe building specific active energy efficiency measures including equipment, controls, fixtures, and systems:

LED Lighting, BMS system, thermal and lighting controls on the office areas.

Describe building specific load reduction strategies including on-site renewable, clean, and energy storage systems:

Onsite renewable will be evaluated for this project.

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

TBD

Describe any energy efficiency assistance or support provided or to be provided to the project:

We have energy modeling contracted as a service to this project in addition to pursuing utility incentives for energy conservation measures.

B.2 - GHG Reduction - Adaptation Strategies

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

TBD

C - Extreme Heat Events

Annual average temperature in Boston increased by about 2°F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

C.1 – Extreme Heat - Design Conditions

Temperature Range - Low:

Deg.

Temperature Range - High:

Deg.

Annual Heating Degree Days:

--

Annual Cooling Degree Days

--

What Extreme Heat Event characteristics will be / have been used for project planning

Days - Above 90°:

#

Days – Above 100°:

#

Number of Heatwaves / Year:

#

Average Duration of Heatwave (Days):

#

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

Light/white roofing, structured parking.

C.2 - Extreme Heat – Adaptation Strategies

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

TBD

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

D - Extreme Precipitation Events

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25". There is a significant probability that this will increase to at least 6" by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

D.1 – Extreme Precipitation - Design Conditions

10 Year, 24 Hour Design Storm: 7.0 In.

Describe all building and site measures for reducing storm water run-off:

Infiltration/treatment for the first inch of runoff from impervious surfaces

D.2 - Extreme Precipitation - Adaptation Strategies

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

Subsurface retention

E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, sea levels in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA SFHA?

YES

What Zone:

AE, AX

Current FEMA SFHA Zone Base Flood Elevation:

16.5 Ft BCB

Is any portion of the site in a BPDA Sea Level Rise - Flood Hazard Area? Use the online [BPDA SLR-FHA Mapping Tool](#) to assess the susceptibility of the project site.

YES
19.4 Ft
BCB

**If you answered YES to either of the above questions, please complete the following questions.
Otherwise you have completed the questionnaire; thank you!**

E.1 – Sea Level Rise and Storms – Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented on the BPDA Sea Level Rise - Flood Hazard Area (SLR-FHA) map, which depicts a modeled 1% annual chance coastal flood event with 40 inches of sea level rise (SLR). Use the online [BPDA SLR-FHA Mapping Tool](#) to identify the highest Sea Level Rise - Base Flood Elevation for the site. The Sea Level Rise - Design Flood Elevation is determined by adding either 24" of freeboard for critical facilities and infrastructure and any ground floor residential units OR 12" of freeboard for other buildings and uses.

Sea Level Rise - Base Flood Elevation:	19.4 Ft BCB	First Floor Elevation:	20.5 Ft BCB
Sea Level Rise - Design Flood Elevation:	20.4 Ft BCB	Accessible Route Elevation:	20.5 Ft BCB
Site Elevations at Building:	20.5 Ft BCB		

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Elevated site areas and elevated critical utility infrastructure.

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

Raised land elevations, backflow prevention and additional elevations for electric transformers and switchgear.

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:

TBD

Describe any strategies that would support rapid recovery after a weather event:

TBD

E.2 – Sea Level Rise and Storms – Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Initial project design should accommodate the current projection of sea level rise for the anticipated building life of 50-60 years.

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

Same.

A pdf and word version of the Climate Resiliency Checklist is provided for informational use and off-line preparation of a project submission. NOTE: Project filings should be prepared and submitted using the online [Climate Resiliency Checklist](#).

For questions or comments about this checklist or Climate Change best practices, please contact:
John.Dalzell@boston.gov



Climate Resiliency Checklist

NOTE: Project filings should be prepared and submitted using the online [Climate Resiliency Checklist](#).

A.1 - Project Information

Project Name:	MMT Parcel 6, Subparcel 6C		
Project Address:	Bounded by Fid Kennedy and Tide St Extension (new), Flynn Marine Park		
Project Address Additional:			
Filing Type (select)	<i>Initial (PNF) Design (prior to final design approval)</i>		
Filing Contact	Kathryn Maynes	Pilot Seafood Properties III LLC	kmaynes@pilotdevelopment.com 617 542-0450
Is MEPA approval required	Yes		TBD

A.3 - Project Team

Owner / Developer:	Subparcel 6C leasehold improvement owner – Pilot Seafood Properties III LLC; Development managed by Pilot Seafood Properties III LLC
Architect:	DESMAN
Engineer:	Hayes Engineering, Inc. – 603 Salem St. – Wakefield, MA 01880
Sustainability / LEED:	Soden Sustainability Consulting
Permitting:	MLF Consulting
Construction Management:	

A.3 - Project Description and Design Conditions

List the principal Building Uses:	Subparcel 6C – mixed-use parking structure
List the First Floor Uses:	Seafood market/café and Union Hall, parking
List any Critical Site Infrastructure and or Building Uses:	Transformers are to be elevated above BFE. (Sanitary lift station to be on Subparcel 6C)

Site and Building:

Site Area:	72,328 SF	Building Area:	104,000 SF
Building Height:	45 Ft	Building Height:	Three (3) decks
Existing Site Elevation – Low:	14 Ft BCB	Existing Site Elevation – High:	16 Ft BCB
Proposed Site Elevation – Low:	16 Ft BCB	Proposed Site Elevation – High:	20.5 Ft BCB
Proposed First Floor Elevation:	20.5 Ft BCB	Below grade levels:	0 Stories

Article 37 Green Building:

LEED Version - Rating System :	V4	LEED Certification:	No
Proposed LEED rating:	Certified/Silver/ Gold/Platinum	Proposed LEED point score:	Pts.

Energy Loads and Performance

For this filing – describe how energy loads & performance were determined

Annual Electric:	(kWh)
Annual Heating:	(MMbtu/hr)
Annual Cooling:	(Tons/hr)
Energy Use - Below ASHRAE 90.1 - 2013:	ASHRAE does not apply to use%
Energy Use - Below Mass. Code:	%

Please note that the dominant energy use is for the seafood market/caf , and the Union Hall. Energy loads and performance are not yet known.

Peak Electric:	(kW)
Peak Heating:	(MMbtu)
Peak Cooling:	(Tons)
Have the local utilities reviewed the building energy performance?:	No
Energy Use Intensity:	(kBtu/SF)

Back-up / Emergency Power System

Electrical Generation Output:	(kW)
System Type:	(kW)

Number of Power Units:	
Fuel Source:	

Emergency and Critical System Loads (in the event of a service interruption)

Electric:	(kW)	Heating:	(MMbtu/hr)
		Cooling:	(Tons/hr)

B – Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance

Reducing GHG emissions is critical to avoiding more extreme climate change conditions. To achieve the City's goal of carbon neutrality by 2050 new buildings performance will need to progressively improve to net carbon zero and positive.

B.1 – GHG Emissions - Design Conditions

For this Filing - Annual Building GHG Emissions: (Tons)

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

TBD

Describe building specific passive energy efficiency measures including orientation, massing, envelop, and systems:

TBD

Describe building specific active energy efficiency measures including equipment, controls, fixtures, and systems:

TBD

Describe building specific load reduction strategies including on-site renewable, clean, and energy storage systems:

TBD

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

TBD

Describe any energy efficiency assistance or support provided or to be provided to the project:

We have energy modeling contracted as a service to this project in addition to pursuing utility incentives for energy conservation measures.

B.2 - GHG Reduction - Adaptation Strategies

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

TBD

C - Extreme Heat Events

Annual average temperature in Boston increased by about 2°F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

C.1 – Extreme Heat - Design Conditions

Temperature Range - Low:

Deg.

Temperature Range - High:

Deg.

Annual Heating Degree Days:

--

Annual Cooling Degree Days

--

What Extreme Heat Event characteristics will be / have been used for project planning

Days - Above 90°:

#

Days – Above 100°:

#

Number of Heatwaves / Year:

#

Average Duration of Heatwave (Days):

#

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

We are studying alternatives, including white decking for the building.

C.2 - Extreme Heat – Adaptation Strategies

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

TBD

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

TBD in detail, and we note that the mechanics of the Sanitary Sewer Lift Station is intended to be on an upper deck.

D - Extreme Precipitation Events

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25". There is a significant probability that this will increase to at least 6" by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

D.1 – Extreme Precipitation - Design Conditions

10 Year, 24 Hour Design Storm: 7.0 In.

Describe all building and site measures for reducing storm water run-off:

Infiltration/treatment for the first inch of runoff from impervious surfaces

D.2 - Extreme Precipitation - Adaptation Strategies

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

Subsurface retention

E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, sea levels in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA SFHA?

YES

What Zone:

AE, AX

Current FEMA SFHA Zone Base Flood Elevation:

16.5 Ft BCB

Is any portion of the site in a BPDA Sea Level Rise - Flood Hazard Area? Use the online [BPDA SLR-FHA Mapping Tool](#) to assess the susceptibility of the project site.

YES
19.4 Ft
BCB

**If you answered YES to either of the above questions, please complete the following questions.
Otherwise you have completed the questionnaire; thank you!**

E.1 – Sea Level Rise and Storms – Design Conditions

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented on the BPDA Sea Level Rise - Flood Hazard Area (SLR-FHA) map, which depicts a modeled 1% annual chance coastal flood event with 40 inches of sea level rise (SLR). Use the online [BPDA SLR-FHA Mapping Tool](#) to identify the highest Sea Level Rise - Base Flood Elevation for the site. The Sea Level Rise - Design Flood Elevation is determined by adding either 24" of freeboard for critical facilities and infrastructure and any ground floor residential units OR 12" of freeboard for other buildings and uses.

Sea Level Rise - Base Flood Elevation:	19.4 Ft BCB	First Floor Elevation:	20.5 Ft BCB
Sea Level Rise - Design Flood Elevation:	20.4 Ft BCB	Accessible Route Elevation:	20.5 Ft BCB
Site Elevations at Building:	20.5 Ft BCB		

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

Elevated site areas and elevated critical utility infrastructure.

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

TBD

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:

TBD

Describe any strategies that would support rapid recovery after a weather event:

TBD

E.2 – Sea Level Rise and Storms – Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

TBD

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

TBD

A pdf and word version of the Climate Resiliency Checklist is provided for informational use and off-line preparation of a project submission. NOTE: Project filings should be prepared and submitted using the online [Climate Resiliency Checklist](#).

For questions or comments about this checklist or Climate Change best practices, please contact:
John.Dalzell@boston.gov

MMT PARCEL 6, SO. BOSTON

APPENDIX D – RESPONSES TO COB ACCESSIBILITY CHECKLIST

Appendix D1- Sub-Parcel 6A- Boston Sword & Tuna Accessibility Checklist

Article 80 – Accessibility Checklist

A requirement of the Boston Planning & Development Agency (BPDA)
Article 80 Development Review Process

1.

1. Project Information: <i>If this is a multi-phased or multi-building project, fill out a separate Checklist for each phase/building.</i>			
Project Name:	Pilot Seafood at MMT Parcel 6A		
Primary Project Address:	Massachusetts Port Authority Marine Terminal – MMT Parcel 6		
Total Number of Phases/Buildings:	3		
Primary Contact (Name / Title / Company / Email / Phone):	Eden Milroy, President, Pilot Development Partners, Inc., Manager, Pilot Seafood Properties III LLC / emilroy@pilotdevelopment.com / 617 542 0450		
Owner / Developer:	Pilot Seafood Properties III LLC		
Architect:	Design Group / STV Inc.		
Civil Engineer:	Hayes Engineering		
Landscape Architect:	Ray Dunetz Landscape Architecture		
Permitting:	MLF Consulting LLC / Dalton & Feingold		
Construction Management:	Pilot Development Partners, Inc.		
At what stage is the project at time of this questionnaire? Select below:			
	<i>PNF / Expanded PNF Submitted</i>	Draft / Final Project Impact Report Submitted	BPDA Board Approved
	BPDA Design Approved	Under Construction	Construction Completed:
Do you anticipate filing for any variances with the Massachusetts Architectural Access Board (MAAB)? If yes, identify and explain.	No.		

Appendix D1- Sub-Parcel 6A- Boston Sword & Tuna Accessibility Checklist

2. Building Classification and Description:

This section identifies preliminary construction information about the project including size and uses.

What are the dimensions of the project?

Site Area:	77,365 SF	Building Area:	48,070 GSF
Building Height:	<50 FT.	Number of Stories:	1 story & mezzanine Flrs.
First Floor Elevation:	On grade	Is there below grade space:	Yes /No

What is the Construction Type? (Select most appropriate type)

	Wood Frame	Masonry	Steel Frame	Concrete
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What are the principal building uses? (IBC definitions are below – select all appropriate that apply)

	Residential – One - Three Unit	Residential - Multi-unit, Four +	Institutional	Educational
	Business	Mercantile	Factory	Hospitality
	Laboratory / Medical	Storage, Utility and Other		

List street-level uses of the building:

3. Assessment of Existing Infrastructure for Accessibility:

This section explores the proximity to accessible transit lines and institutions, such as (but not limited to) hospitals, elderly & disabled housing, and general neighborhood resources. Identify how the area surrounding the development is accessible for people with mobility impairments and analyze the existing condition of the accessible routes through sidewalk and pedestrian ramp reports.

Provide a description of the neighborhood where this development is located and its identifying topographical characteristics:	The Massport Marine Terminal within the Raymond L. Flynn Marine Park is approximately 30 acres, developed primarily for marine industrial uses, such as Legal Sea Foods' Quality Control Center and the multi-tenant seafood center at 8 Seafood Way, both of which are located further than 500 feet from the western parcel line of the subject Parcel 6. North of Parcel 6 is the Shore Road on Boston Harbor. To the east, Parcels 7 and 8, are paved and mostly used for parking and construction laydown, with a maintenance facility more than 500 feet from the eastern parcel line of Parcel 6. These Massport parcels, leased from EDIC, are mostly flat. To the south is 25 Fid Kennedy Avenue, on EDIC land; Au Bon Pain's international headquarters and various other commercial enterprises.
List the surrounding accessible MBTA transit lines and their proximity to development site: commuter rail / subway stations, bus stops:	The Silver Line service to Tide Street is two blocks south of Parcel 6, and the Red Line at South Station in downtown Boston is the other closest transit center, with bus, commuter rail and Amtrak facilities.

Appendix D1- Sub-Parcel 6A- Boston Sword & Tuna Accessibility Checklist

List the surrounding institutions: hospitals, public housing, elderly and disabled housing developments, educational facilities, others:	Boston Medical Center is the closest hospital, with South Boston Community Health Center; the nearest public housing is at West Broadway and D Street in South Boston; Police Station C-6; Fire Station #39 on 272 D Street. Tufts University at 99 High Street is the nearest educational facility to Parcel 6, and Boston offers a plethora of others.
List the surrounding government buildings: libraries, community centers, recreational facilities, and other related facilities:	The South Boston branch of the Boston Public Library is at 646 East Broadway. There are a number of community centers, from Curley CC on Columbia Road, Condon CC on D Street, Tynan on East 4 th Street, and Walsh at 533 East Broadway. While community centers generally include recreational facilities, other recreational options include the Action Center at 424 West Broadway. Related facilities include the Tierney Learning Center at 125 Mercer Street and the Mary Ellen McCormack Computer Center at 7 Sterling Square.
4. Surrounding Site Conditions – Existing: <i>This section identifies current condition of the sidewalks and pedestrian ramps at the development site.</i>	
Is the development site within a historic district? <i>If yes,</i> identify which district:	
Are there sidewalks and pedestrian ramps existing at the development site? <i>If yes,</i> list the existing sidewalk and pedestrian ramp dimensions, slopes, materials, and physical condition at the development site:	No.
Are the sidewalks and pedestrian ramps existing-to-remain? <i>If yes,</i> have they been verified as ADA / MAAB compliant (with yellow composite detectable warning surfaces, cast in concrete)? <i>If yes,</i> provide description and photos:	No sidewalks exist.
5. Surrounding Site Conditions – Proposed <i>This section identifies the proposed condition of the walkways and pedestrian ramps around the development site. Sidewalk width contributes to the degree of comfort walking along a street. Narrow sidewalks do not support lively pedestrian activity, and may create dangerous conditions that force people to walk in the street. Wider sidewalks allow people to walk side by side and pass each other comfortably walking alone, walking in pairs, or using a wheelchair.</i>	

Appendix D1- Sub-Parcel 6A- Boston Sword & Tuna Accessibility Checklist

Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? <i>If yes</i> , choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, or Boulevard.	Yes; industrial
What are the total dimensions and slopes of the proposed sidewalks? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone:	All sidewalks will be flush. The width of the Frontage zone will be five feet; sidewalks vary from five – ten feet; sidewalk side-slope is less than 2%; longitudinal slope varies from 0% to less than 5%.
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	Materials will be concrete on all zones, and will be on private property.
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way? <i>If yes</i> , what are the proposed dimensions of the sidewalk café or furnishings and what will the remaining right-of-way clearance be?	No.
If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the Public Improvement Commission (PIC)?	No.
Will any portion of the Project be going through the PIC? <i>If yes</i> , identify PIC actions and provide details.	No.
6. Accessible Parking: See Massachusetts Architectural Access Board Rules and Regulations 521 CMR Section 23.00 regarding accessible parking requirement counts and the Massachusetts Office of Disability – Disabled Parking Regulations.	
What is the total number of parking spaces provided at the development site? Will these be in a parking lot or garage?	There will be 57 private, owner-occupied surface parking spaces. The building is relying upon an additional 40 parking spaces at the proposed Parcel 6 mixed-use parking garage.

Appendix D1- Sub-Parcel 6A- Boston Sword & Tuna Accessibility Checklist

What is the total number of accessible spaces provided at the development site? How many of these are “Van Accessible” spaces with an 8 foot access aisle?	Two accessible spaces, and one van-accessible space.
Will any on-street accessible parking spaces be required? <i>If yes</i> , has the proponent contacted the Commission for Persons with Disabilities regarding this need?	No.
Where is the accessible visitor parking located?	Accessible visitor parking will be adjacent to the Visitor entrance.
Has a drop-off area been identified? <i>If yes</i> , will it be accessible?	No.
7. Circulation and Accessible Routes: <i>The primary objective in designing smooth and continuous paths of travel is to create universal access to entryways and common spaces, which accommodates persons of all abilities and allows for visibility with neighbors.</i>	
Describe accessibility at each entryway: Example: Flush Condition, Stairs, Ramp, Lift or Elevator:	Entryways for Visitors and Employees will be flush. (The mixed-use garage structure – a separate building - will include an elevator.)
Are the accessible entrances and standard entrance integrated? <i>If yes</i> , describe. <i>If no</i> , what is the reason?	Yes, all entrances to this private company, except Utility Service entrances, will be accessible for wheelchairs.
<i>If project is subject to Large Project Review/Institutional Master Plan</i> , describe the accessible routes wayfinding / signage package.	This building is part of a three-building development which is subject to Article 80 voluntary review. However, each of the three buildings will be separately owned and operated.
8. Accessible Units (Group 2) and Guestrooms: (If applicable) <i>In order to facilitate access to housing and hospitality, this section addresses the number of accessible units that are proposed for the development site that remove barriers to housing and hotel rooms.</i>	
What is the total number of proposed housing units or hotel rooms for the development?	None

Appendix D1- Sub-Parcel 6A- Boston Sword & Tuna Accessibility Checklist

<i>If a residential development</i> , how many units are for sale? How many are for rent? What is the breakdown of market value units vs. IDP (Inclusionary Development Policy) units?	n/a
<i>If a residential development</i> , how many accessible Group 2 units are being proposed?	n/a
<i>If a residential development</i> , how many accessible Group 2 units will also be IDP units? <i>If none</i> , describe reason.	n/a
<i>If a hospitality development</i> , how many accessible units will feature a wheel-in shower? Will accessible equipment be provided as well? <i>If yes</i> , provide amount and location of equipment.	n/a
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs / thresholds at entry, step to balcony, others. <i>If yes</i> , provide reason.	n/a
Are there interior elevators, ramps or lifts located in the development for access around architectural barriers and/or to separate floors? <i>If yes</i> , describe:	n/a
9. Community Impact: <i>Accessibility and inclusion extend past required compliance with building codes. Providing an overall scheme that allows full and equal participation of persons with disabilities makes the development an asset to the surrounding community.</i>	
Is this project providing any funding or improvements to the surrounding neighborhood? Examples: adding extra street trees, building or refurbishing a local park, or supporting other community-based initiatives?	Landscaping will include trees that currently do not exist on the mostly asphalt-paved expanse.

Appendix D1- Sub-Parcel 6A- Boston Sword & Tuna Accessibility Checklist

<p>What inclusion elements does this development provide for persons with disabilities in common social and open spaces? Example: Indoor seating and TVs in common rooms; outdoor seating and barbecue grills in yard. Will all of these spaces and features provide accessibility?</p>	<p>This building is a factory building with no public spaces.</p>
<p>Are any restrooms planned in common public spaces? If yes, will any be single-stall, ADA compliant and designated as "Family"/ "Companion" restrooms? If no, explain why not.</p>	<p>This building is a factory with no public spaces.</p>
<p>Has the proponent reviewed the proposed plan with the City of Boston Disability Commissioner or with their Architectural Access staff? If yes, did they approve? If no, what were their comments?</p>	<p>Not at this time. This will be done during the review period for the PNF.</p>
<p>Has the proponent presented the proposed plan to the Disability Advisory Board at one of their monthly meetings? Did the Advisory Board vote to support this project? If no, what recommendations did the Advisory Board give to make this project more accessible?</p>	<p>Not at this time. This will be done during the review period for the PNF.</p>
<p>10. Attachments</p> <p><i>Include a list of all documents you are submitting with this Checklist. This may include drawings, diagrams, photos, or any other material that describes the accessible and inclusive elements of this project.</i></p>	
<p>Provide a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations, including route distances.</p>	
<p>Provide a diagram of the accessible route connections through the site, including distances.</p>	
<p>Provide a diagram the accessible route to any roof decks or outdoor courtyard space? (if applicable)</p>	
<p>Provide a plan and diagram of the accessible Group 2 units, including locations and route from accessible entry.</p>	
<p>Provide any additional drawings, diagrams, photos, or any other material that describes the inclusive and accessible elements of this project.</p>	

Appendix D1- Sub-Parcel 6A- Boston Sword & Tuna Accessibility Checklist

This completes the Article 80 Accessibility Checklist required for your project. Prior to and during the review process, Commission staff are able to provide technical assistance and design review, in order to help achieve ideal accessibility and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to Boston's diverse residents and visitors, including those with physical, sensory, and other disabilities.

For questions or comments about this checklist, or for more information on best practices for improving accessibility and inclusion, visit www.boston.gov/disability, or our office:

The Mayor's Commission for Persons with Disabilities
1 City Hall Square, Room 967,
Boston MA 02201.

Architectural Access staff can be reached at:

accessibility@boston.gov | patricia.mendez@boston.gov | sarah.leung@boston.gov | 617-635-3682

Appendix D2- Sub-Parcel 6B Accessibility Checklist

Article 80 – Accessibility Checklist

A requirement of the Boston Planning & Development Agency (BPDA)
Article 80 Development Review Process

1.

1. Project Information: <i>If this is a multi-phased or multi-building project, fill out a separate Checklist for each phase/building.</i>			
Project Name:	Pilot Seafood at MMT Parcel 6B		
Primary Project Address:	Massachusetts Port Authority Marine Terminal – MMT Parcel 6		
Total Number of Phases/Buildings:	3		
Primary Contact (Name / Title / Company / Email / Phone):	Eden Milroy, President, Pilot Development Partners, Inc., Manager, Pilot Seafood Properties III LLC / emilroy@pilotdevelopment.com / 617 542 0450		
Owner / Developer:	Owner (Sub-parcel 6B ground-lease tenant to be determined) / Pilot Seafood Properties III LLC		
Architect:	Design Group / STV Inc.		
Civil Engineer:	Hayes Engineering		
Landscape Architect:	Ray Dunetz Landscape Architecture		
Permitting:	MLF Consulting / Dalton & Feingold		
Construction Management:	Pilot Development Partners, Inc.		
At what stage is the project at time of this questionnaire? Select below:			
	<i>PNF / Expanded PNF Submitted</i>	Draft / Final Project Impact Report Submitted	BPDA Board Approved
	BPDA Design Approved	Under Construction	Construction Completed:
Do you anticipate filing for any variances with the Massachusetts Architectural Access Board (MAAB)? <i>If yes</i> , identify and explain.	No.		

Appendix D2- Sub-Parcel 6B Accessibility Checklist

2. Building Classification and Description:

This section identifies preliminary construction information about the project including size and uses.

What are the dimensions of the project?

Site Area:	133,996 SF	Building Area:	~ 67,000 GSF
Building Height:	Less than 50 FT.	Number of Stories:	1 story & mezzanine Flrs.
First Floor Elevation:	On grade	Is there below grade space:	Yes /No

What is the Construction Type? (Select most appropriate type)

	Wood Frame	Masonry	Steel Frame	Concrete
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What are the principal building uses? (IBC definitions are below – select all appropriate that apply)

	Residential – One - Three Unit	Residential - Multi-unit, Four +	Institutional	Educational
	Business	Mercantile	Factory	Hospitality
	Laboratory / Medical	Storage, Utility and Other		

List street-level uses of the building:

3. Assessment of Existing Infrastructure for Accessibility:

This section explores the proximity to accessible transit lines and institutions, such as (but not limited to) hospitals, elderly & disabled housing, and general neighborhood resources. Identify how the area surrounding the development is accessible for people with mobility impairments and analyze the existing condition of the accessible routes through sidewalk and pedestrian ramp reports.

Provide a description of the neighborhood where this development is located and its identifying topographical characteristics:	The Massport Marine Terminal within the Raymond L. Flynn Marine Park is approximately 30 acres, developed primarily for marine industrial uses, such as Legal Sea Foods' Quality Control Center and the multi-tenant seafood center at 8 Seafood Way, both of which are located further than 500 feet from the western parcel line of the subject Parcel 6. North of Parcel 6 is the Shore Road on Boston Harbor. To the east, Parcels 7 and 8, are paved and mostly used for parking and construction laydown, with a maintenance facility more than 500 feet from the eastern parcel line of Parcel 6. These Massport parcels, leased from EDIC, are mostly flat. To the south is 25 Fid Kennedy Avenue, on EDIC land; Au Bon Pain's international headquarters and various other commercial enterprises.
List the surrounding accessible MBTA transit lines and their proximity to development site: commuter rail / subway stations, bus stops:	The Silver Line service to Tide Street is two blocks south of Parcel 6, and the Red Line at South Station in downtown Boston is the other closest transit center, with bus, commuter rail and Amtrak facilities.

Appendix D2- Sub-Parcel 6B Accessibility Checklist

List the surrounding institutions: hospitals, public housing, elderly and disabled housing developments, educational facilities, others:	Boston Medical Center is the closest hospital, with South Boston Community Health Center; the nearest public housing is at West Broadway and D Street in South Boston; Police Station C-6; Fire Station #39 on 272 D Street. Tufts University at 99 High Street is the nearest educational facility to Parcel 6, and Boston offers a plethora of others.
List the surrounding government buildings: libraries, community centers, recreational facilities, and other related facilities:	The South Boston branch of the Boston Public Library is at 646 East Broadway. There are a number of community centers, from Curley CC on Columbia Road, Condon CC on D Street, Tynan on East 4 th Street, and Walsh at 533 East Broadway. While community centers generally include recreational facilities, other recreational options include the Action Center at 424 West Broadway. Related facilities include the Tierney Learning Center at 125 Mercer Street and the Mary Ellen McCormack Computer Center at 7 Sterling Square.
4. Surrounding Site Conditions – Existing:	
<i>This section identifies current condition of the sidewalks and pedestrian ramps at the development site.</i>	
Is the development site within a historic district? If yes , identify which district:	No.
Are there sidewalks and pedestrian ramps existing at the development site? If yes , list the existing sidewalk and pedestrian ramp dimensions, slopes, materials, and physical condition at the development site:	No.
Are the sidewalks and pedestrian ramps existing-to-remain? If yes , have they been verified as ADA / MAAB compliant (with yellow composite detectable warning surfaces, cast in concrete)? If yes , provide description and photos:	No sidewalks exist.
5. Surrounding Site Conditions – Proposed	
<i>This section identifies the proposed condition of the walkways and pedestrian ramps around the development site. Sidewalk width contributes to the degree of comfort walking along a street. Narrow sidewalks do not support lively pedestrian activity, and may create dangerous conditions that force people to walk in the street. Wider sidewalks allow people to walk side by side and pass each other comfortably walking alone, walking in pairs, or using a wheelchair.</i>	

Appendix D2- Sub-Parcel 6B Accessibility Checklist

<p>Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? <i>If yes</i>, choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, or Boulevard.</p>	<p>Pilot proposes to stripe the pavement in lieu of flush concrete, in the established dimensions, to provide high visibility. Pilot does not propose traditional sidewalks, due to the nature of a port operation in an industrial park. There is significant risk to pedestrians at this location, which is owned and operated by a private company with no retail sales on the site.</p>
<p>What are the total dimensions and slopes of the proposed sidewalks? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone:</p>	<p>All sidewalks will be flush. The width of the Frontage zone will be five feet; sidewalks vary from five – ten feet; sidewalk side-slope is less than 2%; longitudinal slope varies from 0% to less than 5%.</p>
<p>List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?</p>	<p>Pedestrian zone is concrete, except at driveways, where pedestrian zone is striped asphalt. This will be on private property.</p>
<p>Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way? <i>If yes</i>, what are the proposed dimensions of the sidewalk café or furnishings and what will the remaining right-of-way clearance be?</p>	<p>No.</p>
<p>If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the Public Improvement Commission (PIC)?</p>	<p>No.</p>
<p>Will any portion of the Project be going through the PIC? <i>If yes</i>, identify PIC actions and provide details.</p>	<p>No.</p>
<p>6. Accessible Parking: See Massachusetts Architectural Access Board Rules and Regulations 521 CMR Section 23.00 regarding accessible parking requirement counts and the Massachusetts Office of Disability – Disabled Parking Regulations.</p>	

Appendix D2- Sub-Parcel 6B Accessibility Checklist

What is the total number of parking spaces provided at the development site? Will these be in a parking lot or garage?	There will be 39 private, owner-occupied surface parking spaces. The building is relying upon an additional 20 parking spaces at the proposed Parcel 6C mixed-use parking garage.
What is the total number of accessible spaces provided at the development site? How many of these are “Van Accessible” spaces with an 8 foot access aisle?	Two accessible spaces, and one van-accessible space.
Will any on-street accessible parking spaces be required? <i>If yes</i> , has the proponent contacted the Commission for Persons with Disabilities regarding this need?	No.
Where is the accessible visitor parking located?	Accessible visitor parking will be adjacent to the Visitor entrance.
Has a drop-off area been identified? <i>If yes</i> , will it be accessible?	Not applicable.
7. Circulation and Accessible Routes: <i>The primary objective in designing smooth and continuous paths of travel is to create universal access to entryways and common spaces, which accommodates persons of all abilities and allows for visibility with neighbors.</i>	
Describe accessibility at each entryway: Example: Flush Condition, Stairs, Ramp, Lift or Elevator:	Entryways for Visitors and Employees will be flush. (The mixed-use garage structure on 6C – a separate building - will include an elevator.)
Are the accessible entrances and standard entrance integrated? <i>If yes</i> , describe. <i>If no</i> , what is the reason?	Yes, all entrances to this private company, except Utility Service entrances, will be accessible for wheelchairs.
<i>If project is subject to Large Project Review/Institutional Master Plan</i> , describe the accessible routes wayfinding / signage package.	This building is part of a three-building development which is subject to Article 80 voluntary review. However, each of the three buildings will be separately owned and operated.

Appendix D2- Sub-Parcel 6B Accessibility Checklist

8. Accessible Units (Group 2) and Guestrooms: (If applicable)

In order to facilitate access to housing and hospitality, this section addresses the number of accessible units that are proposed for the development site that remove barriers to housing and hotel rooms.

What is the total number of proposed housing units or hotel rooms for the development?	None
<i>If a residential development, how many units are for sale? How many are for rent? What is the breakdown of market value units vs. IDP (Inclusionary Development Policy) units?</i>	n/a
<i>If a residential development, how many accessible Group 2 units are being proposed?</i>	n/a
<i>If a residential development, how many accessible Group 2 units will also be IDP units? If none, describe reason.</i>	n/a
<i>If a hospitality development, how many accessible units will feature a wheel-in shower? Will accessible equipment be provided as well? If yes, provide amount and location of equipment.</i>	n/a
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs / thresholds at entry, step to balcony, others. <i>If yes, provide reason.</i>	n/a
Are there interior elevators, ramps or lifts located in the development for access around architectural barriers and/or to separate floors? <i>If yes, describe:</i>	n/a

Appendix D2- Sub-Parcel 6B Accessibility Checklist

9. Community Impact:

Accessibility and inclusion extend past required compliance with building codes. Providing an overall scheme that allows full and equal participation of persons with disabilities makes the development an asset to the surrounding community.

Is this project providing any funding or improvements to the surrounding neighborhood? Examples: adding extra street trees, building or refurbishing a local park, or supporting other community-based initiatives?	Most industrial parks are inaccessible to private vehicles and pedestrians. Pilot does not propose public attractions on Sub-parcel 6B, due to the nature of a port operation in an industrial park, removed from residential use. There is significant risk to pedestrians at this location, which is owned and operated by a private company with no retail sales on the site. Landscaping is anticipated to include vegetation that currently does not exist on the mostly asphalt-paved expanse.
What inclusion elements does this development provide for persons with disabilities in common social and open spaces? Example: Indoor seating and TVs in common rooms; outdoor seating and barbecue grills in yard. Will all of these spaces and features provide accessibility?	This building is a private factory building with no public spaces.
Are any restrooms planned in common public spaces? <i>If yes</i> , will any be single-stall, ADA compliant and designated as "Family"/"Companion" restrooms? <i>If no</i> , explain why not.	This building is a factory with no public spaces.
Has the proponent reviewed the proposed plan with the City of Boston Disability Commissioner or with their Architectural Access staff? <i>If yes</i> , did they approve? <i>If no</i> , what were their comments?	Not at this time. This will be done during the review period for the PNF.
Has the proponent presented the proposed plan to the Disability Advisory Board at one of their monthly meetings? Did the Advisory Board vote to support this project? <i>If no</i> , what recommendations did the Advisory Board give to make this project more accessible?	Not at this time. This will be done during the review period for the PNF.

Appendix D2- Sub-Parcel 6B Accessibility Checklist

10. Attachments

Include a list of all documents you are submitting with this Checklist. This may include drawings, diagrams, photos, or any other material that describes the accessible and inclusive elements of this project.

Provide a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations, including route distances.

Provide a diagram of the accessible route connections through the site, including distances.

Provide a diagram the accessible route to any roof decks or outdoor courtyard space? (if applicable)

Provide a plan and diagram of the accessible Group 2 units, including locations and route from accessible entry.

Provide any additional drawings, diagrams, photos, or any other material that describes the inclusive and accessible elements of this project.

This completes the Article 80 Accessibility Checklist required for your project. Prior to and during the review process, Commission staff are able to provide technical assistance and design review, in order to help achieve ideal accessibility and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to Boston's diverse residents and visitors, including those with physical, sensory, and other disabilities.

For questions or comments about this checklist, or for more information on best practices for improving accessibility and inclusion, visit www.boston.gov/disability, or our office:

The Mayor's Commission for Persons with Disabilities
1 City Hall Square, Room 967,
Boston MA 02201.

Architectural Access staff can be reached at:

accessibility@boston.gov | patricia.mendez@boston.gov | sarah.leung@boston.gov | 617-635-3682

Appendix D3- Sub-Parcel 6C Accessibility Checklist

Article 80 – Accessibility Checklist

A requirement of the Boston Planning & Development Agency (BPDA)
Article 80 Development Review Process

1.

1. Project Information: <i>If this is a multi-phased or multi-building project, fill out a separate Checklist for each phase/building.</i>			
Project Name:	Pilot Seafood at MMT Parcel 6C		
Primary Project Address:	Massachusetts Port Authority Marine Terminal – MMT Parcel 6		
Total Number of Phases/Buildings:	3		
Primary Contact (Name / Title / Company / Email / Phone):	Eden Milroy, President, Pilot Development Partners, Inc., Manager, Pilot Seafood Properties III LLC / emilroy@pilotdevelopment.com / 617 542 0450		
Owner / Developer:	Owner (Sub-parcel 6C ground-lease tenant to be determined) / Pilot Seafood Properties III LLC		
Architect:	DESMAN		
Civil Engineer:	Hayes Engineering		
Landscape Architect:	Ray Dunetz Landscape Architecture		
Permitting:	MLF Consulting LLC / Dalton & Feingold		
Construction Management:	Pilot Development Partners, Inc.		
At what stage is the project at time of this questionnaire? Select below:			
	<i>PNF / Expanded</i> <i>PNF Submitted</i>	Draft / Final Project Impact Report Submitted	BPDA Board Approved
	BPDA Design Approved	Under Construction	Construction Completed:
Do you anticipate filing for any variances with the Massachusetts Architectural Access Board (MAAB)? <i>If yes</i> , identify and explain.	No.		

Appendix D3- Sub-Parcel 6C Accessibility Checklist

2. Building Classification and Description:

This section identifies preliminary construction information about the project including size and uses.

What are the dimensions of the project?

Site Area:	72,328 SF	Building Area:	97,550 GSF
Building Height:	45 FT.	Number of Stories:	Three decks
First Floor Elevation:	On grade	Is there below grade space:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

What is the Construction Type? (Select most appropriate type)

	Wood Frame	Masonry	Steel Frame	<input checked="" type="checkbox"/> Concrete
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What are the principal building uses? (IBC definitions are below – select all appropriate that apply)

	Residential – One - Three Unit	Residential - Multi-unit, Four +	Institutional	Educational
	<input checked="" type="checkbox"/> Business	Mercantile	Factory	<input checked="" type="checkbox"/> Hospitality
	Laboratory / Medical	<input checked="" type="checkbox"/> Storage, Utility and Other		

List street-level uses of the building:

Marine industrial seafood processing and freezer storage

3. Assessment of Existing Infrastructure for Accessibility:

This section explores the proximity to accessible transit lines and institutions, such as (but not limited to) hospitals, elderly & disabled housing, and general neighborhood resources. Identify how the area surrounding the development is accessible for people with mobility impairments and analyze the existing condition of the accessible routes through sidewalk and pedestrian ramp reports.

Provide a description of the neighborhood where this development is located and its identifying topographical characteristics:	The Massport Marine Terminal within the Raymond L. Flynn Marine Park is approximately 30 acres, developed primarily for marine industrial uses, such as Legal Sea Foods' Quality Control Center and the multi-tenant seafood center at 8 Seafood Way, both of which buildings are located further than 500 feet from the western parcel line of the subject Parcel 6. North of Parcel 6 is the Shore Road on Boston Harbor. To the east, Parcels 7 and 8, are paved and mostly used for parking and construction laydown, with a maintenance building more than 500 feet from the eastern parcel line of Parcel 6. These Massport parcels, leased from EDIC, are mostly flat. To the south is 25 Fid Kennedy Avenue, on EDIC land; Au Bon Pain's international headquarters, and various other commercial enterprises.
List the surrounding accessible MBTA transit lines and their proximity to development site: commuter rail / subway stations, bus stops:	The Silver Line service to Tide Street is two blocks south of Parcel 6, and the Red Line at South Station in downtown Boston is the other closest transit center, with bus, commuter rail and Amtrak facilities.

Appendix D3- Sub-Parcel 6C Accessibility Checklist

List the surrounding institutions: hospitals, public housing, elderly and disabled housing developments, educational facilities, others:	Boston Medical Center is the closest hospital, with South Boston Community Health Center; the nearest public housing is at West Broadway and D Street in South Boston; Police Station C-6; Fire Station #39 on 272 D Street. Tufts University at 99 High Street is the nearest educational facility to Parcel 6, and Boston offers a plethora of others.
List the surrounding government buildings: libraries, community centers, recreational facilities, and other related facilities:	The South Boston branch of the Boston Public Library is at 646 East Broadway. There are a number of community centers, from Curley CC on Columbia Road, Condon CC on D Street, Tynan on East 4 th Street, and Walsh at 533 East Broadway. While community centers generally include recreational facilities, other recreational options include the Action Center at 424 West Broadway. Related facilities include the Tierney Learning Center at 125 Mercer Street and the Mary Ellen McCormack Computer Center at 7 Sterling Square.
4. Surrounding Site Conditions – Existing:	
<i>This section identifies current condition of the sidewalks and pedestrian ramps at the development site.</i>	
Is the development site within a historic district? <i>If yes</i> , identify which district:	No.
Are there sidewalks and pedestrian ramps existing at the development site? <i>If yes</i> , list the existing sidewalk and pedestrian ramp dimensions, slopes, materials, and physical condition at the development site:	No. Please note that there is existing sidewalk on Fid Kennedy Avenue on EDIC land, to which our new sidewalks will connect.
Are the sidewalks and pedestrian ramps existing-to-remain? <i>If yes</i> , have they been verified as ADA / MAAB compliant (with yellow composite detectable warning surfaces, cast in concrete)? <i>If yes</i> , provide description and photos:	Not applicable, as the existing sidewalk is not on the development site.
5. Surrounding Site Conditions – Proposed	
<i>This section identifies the proposed condition of the walkways and pedestrian ramps around the development site. Sidewalk width contributes to the degree of comfort walking along a street. Narrow sidewalks do not support lively pedestrian activity, and may create dangerous conditions that force people to walk in the street. Wider sidewalks allow people to walk side by side and pass each other comfortably walking alone, walking in pairs, or using a wheelchair.</i>	

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Are the proposed sidewalks consistent with the Boston Complete Street Guidelines? <i>If yes</i> , choose which Street Type was applied: Downtown Commercial, Downtown Mixed-use, Neighborhood Main, Connector, Residential, Industrial, Shared Street, Parkway, or Boulevard.	<p>Yes: Industrial.</p> <p>Please note that the proposed sidewalks along Tide Street extension, and along the road to be constructed (which attribution for design purposes is Bollard Way) are to be tied into the existing EDIC sidewalk on Fid Kennedy Avenue.</p>
What are the total dimensions and slopes of the proposed sidewalks? List the widths of the proposed zones: Frontage, Pedestrian and Furnishing Zone:	The width of the Frontage zone will be five feet; sidewalks vary from five – ten feet; sidewalk side-slope is less than 2%; longitudinal slope varies from 0% to 5%.
List the proposed materials for each Zone. Will the proposed materials be on private property or will the proposed materials be on the City of Boston pedestrian right-of-way?	Pedestrian zone is concrete, except at driveways, where pedestrian zone is striped asphalt. The sidewalk and frontage are private on private streets.
Will sidewalk cafes or other furnishings be programmed for the pedestrian right-of-way? <i>If yes</i> , what are the proposed dimensions of the sidewalk café or furnishings and what will the remaining right-of-way clearance be?	No.
If the pedestrian right-of-way is on private property, will the proponent seek a pedestrian easement with the Public Improvement Commission (PIC)?	No.
Will any portion of the Project be going through the PIC? <i>If yes</i> , identify PIC actions and provide details.	No.
<p>6. Accessible Parking:</p> <p>See Massachusetts Architectural Access Board Rules and Regulations 521 CMR Section 23.00 regarding accessible parking requirement counts and the Massachusetts Office of Disability – Disabled Parking Regulations.</p>	
What is the total number of parking spaces provided at the development site? Will these be in a parking lot or garage?	<p>There will be a total of 343 spaces at Sub-parcel 6C:</p> <ul style="list-style-type: none"> • 66 private, owner-occupied surface parking spaces and • 277 parking spaces at the mixed-use parking garage.

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What is the total number of accessible spaces provided at the development site? How many of these are “Van Accessible” spaces with an 8 foot access aisle?	Six conventional accessible spaces, and two van-accessible spaces.
Will any on-street accessible parking spaces be required? <i>If yes</i> , has the proponent contacted the Commission for Persons with Disabilities regarding this need?	No.
Where is the accessible visitor parking located?	Two surface spaces adjacent to the Seafood Market and two surface spaces inside the garage ground level, with two additional spaces adjacent to the elevator at Level 2 and two final at Level 3.
Has a drop-off area been identified? <i>If yes</i> , will it be accessible?	No.
7. Circulation and Accessible Routes:	
The primary objective in designing smooth and continuous paths of travel is to create universal access to entryways and common spaces, which accommodates persons of all abilities and allows for visibility with neighbors.	
Describe accessibility at each entryway: Example: Flush Condition, Stairs, Ramp, Lift or Elevator:	Entryways for Visitors and Employees will be flush. The mixed-use garage structure on 6C incorporates an accessible elevator.
Are the accessible entrances and standard entrance integrated? <i>If yes</i> , describe. <i>If no</i> , what is the reason?	Yes, all entrances, except Utility Service entrances, will be accessible.
<i>If project is subject to Large Project Review/Institutional Master Plan</i> , describe the accessible routes wayfinding / signage package.	This building is part of a three-building development which is subject to Article 80 voluntary review. However, each of the three buildings will be separately owned and operated.
8. Accessible Units (Group 2) and Guestrooms: (If applicable)	
In order to facilitate access to housing and hospitality, this section addresses the number of accessible units that are proposed for the development site that remove barriers to housing and hotel rooms.	
What is the total number of proposed housing units or hotel rooms for the development?	None

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<i>If a residential development,</i> how many units are for sale? How many are for rent? What is the breakdown of market value units vs. IDP (Inclusionary Development Policy) units?	n/a
<i>If a residential development,</i> how many accessible Group 2 units are being proposed?	n/a
<i>If a residential development,</i> how many accessible Group 2 units will also be IDP units? <i>If none,</i> describe reason.	n/a
<i>If a hospitality development,</i> how many accessible units will feature a wheel-in shower? Will accessible equipment be provided as well? <i>If yes,</i> provide amount and location of equipment.	n/a
Do standard units have architectural barriers that would prevent entry or use of common space for persons with mobility impairments? Example: stairs / thresholds at entry, step to balcony, others. <i>If yes,</i> provide reason.	n/a
Are there interior elevators, ramps or lifts located in the development for access around architectural barriers and/or to separate floors? <i>If yes,</i> describe:	n/a
9. Community Impact: <i>Accessibility and inclusion extend past required compliance with building codes. Providing an overall scheme that allows full and equal participation of persons with disabilities makes the development an asset to the surrounding community.</i>	
Is this project providing any funding or improvements to the surrounding neighborhood? Examples: adding extra street trees, building or refurbishing a local park, or supporting other community-based initiatives?	The project site is completely contained within an existing industrial neighborhood. Pilot is providing a public seafood market and additional onsite parking to serve the maritime industrial neighborhood. Landscaping is anticipated to include vegetation that currently does not exist on the mostly asphalt-paved expanse.

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What inclusion elements does this development provide for persons with disabilities in common social and open spaces? Example: Indoor seating and TVs in common rooms; outdoor seating and barbecue grills in yard. Will all of these spaces and features provide accessibility?	The seafood market and lunch counter will offer complete accessibility with seating and restrooms.
Are any restrooms planned in common public spaces? <i>If yes</i> , will any be single-stall, ADA compliant and designated as "Family"/"Companion" restrooms? <i>If no</i> , explain why not.	Yes, the seafood market space will offer accessible restrooms. These will be single-stall, and ADA compliant.
Has the proponent reviewed the proposed plan with the City of Boston Disability Commissioner or with their Architectural Access staff? <i>If yes</i> , did they approve? <i>If no</i> , what were their comments?	Not at this time. This will be done during the review period for the PNF.
Has the proponent presented the proposed plan to the Disability Advisory Board at one of their monthly meetings? Did the Advisory Board vote to support this project? <i>If no</i> , what recommendations did the Advisory Board give to make this project more accessible?	Not at this time. This will be done during the review period for the PNF.
10. Attachments <i>Include a list of all documents you are submitting with this Checklist. This may include drawings, diagrams, photos, or any other material that describes the accessible and inclusive elements of this project.</i>	
Provide a diagram of the accessible routes to and from the accessible parking lot/garage and drop-off areas to the development entry locations, including route distances.	
Provide a diagram of the accessible route connections through the site, including distances.	
Provide a diagram the accessible route to any roof decks or outdoor courtyard space? (if applicable)	
Provide a plan and diagram of the accessible Group 2 units, including locations and route from accessible entry.	

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Provide any additional drawings, diagrams, photos, or any other material that describes the inclusive and accessible elements of this project.
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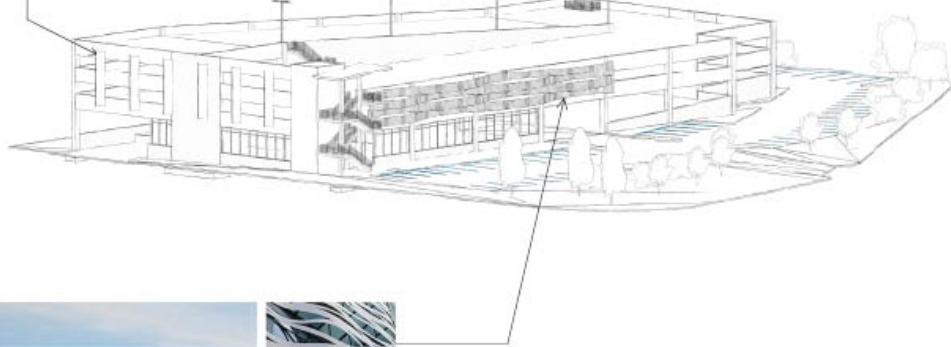
This completes the Article 80 Accessibility Checklist required for your project. Prior to and during the review process, Commission staff are able to provide technical assistance and design review, in order to help achieve ideal accessibility and to ensure that all buildings, sidewalks, parks, and open spaces are usable and welcoming to Boston's diverse residents and visitors, including those with physical, sensory, and other disabilities.

For questions or comments about this checklist, or for more information on best practices for improving accessibility and inclusion, visit www.boston.gov/disability, or our office:

The Mayor's Commission for Persons with Disabilities
1 City Hall Square, Room 967,
Boston MA 02201.

Architectural Access staff can be reached at:

accessibility@boston.gov | patricia.mendez@boston.gov | sarah.leung@boston.gov | 617-635-3682



MMT- Parcel 6, South Boston, MA